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THE EDITOR'S FARM NOTES.

TREATMENT OF SANDY SOIL.

I have a field of light sandy soil that has been run quite badly. I have it in mind to put in buckwheat as a green manure. How soon can I put it in, and what other manure or fertilizer would be well to add to produce a good crop of green peas.

WAYNE CO. GEO. H. REISSMAN.

The greatest need is to fill the soil with humus, as well as the three leading fertilizing elements, nitrogen, phosphoric acid and potash. For producing green peas for the early market we doubt whether you can find anything better than good barnyard manure heavily applied and plowed under.

If you cannot get the manure we should be inclined to take the whole season to grow a crop of cow peas for fertilization alone. Do not try to harvest the pea crop, even if they should mature, but turn them under after partial maturity at least. If turned under green they might do more damage than good. This is simply our opinion at this distance, though if on the ground we might find our own advice would not do.

Each farmer must decide for himself in such cases as this, as he is more familiar with all the surrounding conditions. We do not value buckwheat very highly as a crop to grow for green manuring on our land.

HOW MUCH SWEET CORN FOR TEN COWS?

I wish to get some estimate of the number of acres of sweet corn, fed in the bundle without cutting, it would take to keep ten cows through the winter.

What kind would be the best to plant? Give manner of planting, also what amount less would answer if it was run through a cutting box. Please answer through the FARMER.

JACKSON CO.

E. S. DUNBAR.

Under the same circumstances we should put in at least one and one-half acres, as we feed it out.

Our plan would be to feed sweet corn daily from the time it was partially matured, say August 15, up to the holidays. When cut in August, September and October, we should feed the whole stalks anyway.

As it is almost impossible to put this corn in stacks or mows, without spoiling, we put in good-sized shocks in the field and haul to the barn as wanted. When cut at maturity we bind in very small shocks or bundles. It is, however, first cut and laid flat to wilt and partially cure before binding.

The best variety we find to be Stowell's evergreen. It makes a large amount of very leafy fodder, and will readily mature in this corn belt.

We drill in rows far enough apart for horse cultivation—from three feet to three feet six inches. Our drill may be set to drop kernels thickly or thinly. We like to have the seed from four to six inches apart.

We fit the seed bed the same as for our yellow dent field corn, and give the same kind of harrowing and cultivation after the corn is drilled in.

This corn fodder will go somewhat farther, when matured, if run through a cutter. But it is not necessary to cut up when fed green. After we get through corn husking we haul up a load at a time and run through the cutter. Being fed out in a very few days it will not heat enough to do any damage. The same cut fodder may go one-third farther than if uncut, but it is hardly practicable to keep and feed sweet-corn fodder all winter without more or less being spoiled from heating.

A HOME-MADE TELEPHONE.

During the winter several inquiries have come in regarding a good telephone for short

distance operation. Some have tried one or more devices, but they failed to work.

We have used two telephones on the farm for the last eight years. One line runs from the writer's farm house to that of his father, across the road and about 20 rods away. For this short distance it has worked perfectly.

We have another line running to a neighbor's house, 50 rods away. Both these telephones have saved many steps, and we should hate to go without them.

The two cuts on this page show the telephone and manner of its erection. Fig. 2 shows a stout well made cigar box. There must be two of them, of course, and the covers must be nailed on in good shape. Small fine brads are good, and the cut shows where the boxes need nailing.

A is the cover, and it must be a good one to stand the strain to which it will be subjected. In the center of the cover a hole

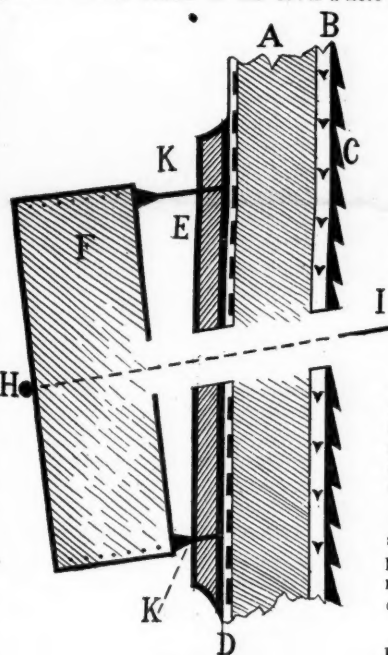


FIG. 1

must be bored, say about two inches in diameter. Bore a three-quarter-inch hole through the bottom, exactly opposite the hole in the cover.

B represents a large wire nail running clear across the cover as shown. The line wire is wrapped or twisted around the nail, so as to rest exactly in the center of the hole. Fig. 1 shows a cross section of the telephone placed in position on the wall. A is the space between studding, B the outside sheathing, and C the weather siding. D is the lath and plaster of the inside wall, and E the backboard of the telephone.

F shows the cigar box resting on large flat screw heads, K. Four screws are turned into the back, or wall board, in such a way that each corner of the box rests squarely on the screw heads, at the proper angle to let the line wire run nearly straight to the top of the first pole or outside support.

H shows the large wire nail to which the line wire I is fastened. The line wire must have as free vibration as possible from one telephone to the other. Be sure that the wire does not touch anything in passing through the telephone F and the house wall. Bore a three-quarter-inch hole through the back board, lath and plaster, and the outside boarding. All these holes must be in line and at the proper angle.

For line wire we first used ordinary bind-

ing wire, such as was years ago used in binding wheat. It is better to use two strands, twisted into one.

For twisting the wire we took a carpenter's bit brace. Two spools of wire were fastened on a shaft at one end of the line, and the ends of two strands fastened into the bit brace. As we slowly walked through to the other end of the "route" we turned the brace crank "for dear life," thus giving a good twist to the parallel wires.

One end of the double line wire is fastened to the nail in front of one telephone, which is temporarily supported in proper position. The line is then fastened up to the poles along the route, in as straight a line as possible, and high enough to be out of the way all along.

Stout tarred twine may be used as loops to hold the line wire in place, or pieces of small wire instead. Having made connections as tight as possible, fasten to the nail in front of the telephone at the opposite end of the line.

Now go down the line part way and draw the wire off one side until it is as taut as you dare stretch it. This is an acoustic telephone, and requires a taut wire, free to vibrate, in order to perfectly conduct the sound of the voice.

See that the wire touches no obstruction along the line, and be sure to shift it so that it will run exactly through the center of all the holes in Fig. 1.

For short distances of 80 rods, or less, this cigar box telephone works very nicely. Conversation in an ordinary tone may be carried on when there is no heavy wind or storm passing. It is an easy job to erect such a line as this, and ours cost us less than 50 cents for wire. For short distance work it may be relied upon. Either end is "called up" by tapping on the box.

Of course the electric telephone is better, and many of the various patents are expiring, but these instruments still cost too much for us farmers to either rent or purchase.

For the Michigan Farmer. GEARED WINDMILL FAILS TO GRIND.

In reply to yours of March 1st, asking for my former experience with the power mill, would say it differed greatly from those in the FARMER that I have noticed in different issues, and on the strength of those I thought I would try one.

Mine is a twelve-foot steel wheel. It has been erected on the barn for about fourteen months, and has been a failure from the first.

It was the agent's first erection of a power mill. The company have sent their experts to look it over and they said it was erected all right, and that the fault was in the grinder. Now I have the fourth grinder, which is all right, but the mill won't run unless there is a gale and that is too much for the gearing. It has broken three times. It is supposed to throw itself out of gear before breaking, but it hasn't the power to do it.

I lay no fault on the agents that erected the mill, as they have done their best, in fact have made improvements on it. Now I would like your opinion on horse tread power, as I feed quite a number of cows for the Elsie cheese factory and use a great amount of feed. But I am discouraged with wind power.

CLINTON CO.

[It seems that some so-called geared or power mills are almost worthless, and that but a few "makes" are really valuable for such work as grinding feed, cutting fodder, shelling corn, etc. We personally know of but two such mills, though there may be others.]

We wish we had a 16-foot geared mill for

grinding feed, cutting fodder and shelling corn, but the question is would such a mill run our grinder and do more satisfactory work than two horses on our tread power?

Our tread power is perfect for all the work we have to do, except to grind ear corn. For this work we should have selected a three-horse tread power, rather than a two-horse. As it is, we do perfect work in grinding with two horses, but not so fast

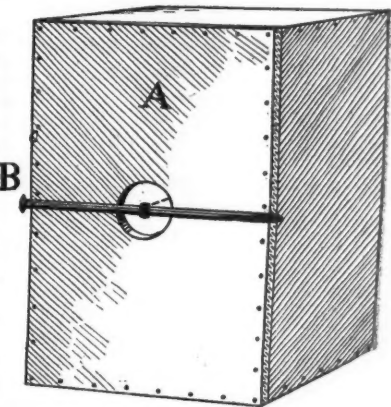


FIG. 2

as we would like. The mill is a heavy combination, conical-shaped grinder, with elevator attached.

A three-horse tread costs but very little more than a two-horse, and that is what we advise purchasing when there is much grinding to do. A four-horse tread would be a still greater improvement.

Our tread power was purchased to use principally for running the creamery machinery, and one horse does this work every day.

There are hundreds of dairy and stock farmers who would erect a geared windmill for grinding feed, etc., if they knew the arrangement, quality and amount of work done would be satisfactory. With a bin above the grinder holding 25 to 50 bushels, and another large bin below, we have seen one geared mill do very satisfactory work. If we had such a mill, conveniently located, we should be much pleased with it.—Ed.]

For the Michigan Farmer. THE BEST WAY TO RAISE TIMOTHY ON TAMARACK SWAMP LAND.

Twenty-four years ago I bought 40 acres of swamp land, for which I paid \$102.50. About 25 acres was tamarack swamp, two acres sand knolls, two acres mound spring, and the remainder black-ash bottoms. The next day after I bought it an Irishman came along as I was cutting brush on said "40," and yells out, "are you going to summer fallow that this summer?"

The next day another neighbor came along and said: "Myron, you can't raise anything on that swamp only thorough-wort, for I've seen it tried." Later on another came by and told an Irish story to make fun of me. He said: An Irishman was fencing such a piece of land and a neighbor says, "Pat, you'll kill your cow if you pasture her on that swamp." "Be jabbers, what I'm fencing it for is to keep her off."

But I am digressing from the subject. I can run a mower over that entire 40 now. But it has taken a great deal of hard work and some sad experience to get it in shape for said mower.

To raise timothy on such land the first requirement is to get it thoroughly ditched to get the water off. Then plow just as good as you can, after you get it cleared of stumps,

logs, roots, stone and every other rubbish. Plow in the fall every time, the earlier the better. If plowed early enough so that the grass starts and it is likely to make a sod, roll down, get on it with a disk harrow and give it one of the fearfulest hackings you ever gave a piece of ground. Let the harrow lap half. Then if it is not to suit you, go across it angling. If not plowed till late, let it lay in furrow till spring, then roll and hack it. Every time you go over it with disk harrow, cross it with spike-tooth drag, roll down and let it lay a spell. A spike-tooth drag with a lever so that you can set the teeth at any angle is best. So keep hacking, dragging and rolling (you can't roll muck land too much), till you get it thoroughly subdued, and about the first day of August sow a peck of timothy seed to the acre (12 quarts is better). Sow it even, drag it in, and roll down. If your land is good for anything and the season suits, you will get hay just as big as you can get a mower through.

Don't sow red top on such land; it will come into red top all too quickly anyhow. Why sow so thick? I don't consider timothy four feet high with stalks as big as coarse knitting needles worth much. If you sow thin, weeds will come up and spoil your hay for market. If you sow thick and with no other crop there will be no stubble or weeds, and your hay will be fine and salable the first year.

If one has a Breed's weeder it is a nice tool to cover timothy seed with. A good lively horse will take you over from 15 to 25 acres in a day. Should any little weeds peep up while you are summer fallowing for timothy, put your weeder over it.

Now, Mr. Editor, I have to say to you, and all other farmers, that there is no way of raising timothy on muck land so nicely and so profitably as to fall plow and summer fallow as above. All such land is good for, as a rule, is grass, and as grass is king on the farm, why not give it the best chance by summer fallowing for it?

M. A. DUNNING.

For the Michigan Farmer.

ECONOMY ON THE FARM.

There are so many ways of practicing economy on the farm that I scarcely know where to begin. I think we have all been taught to economize during the past two or three years by necessity.

Prices have been so low and in some localities crops have failed so that it has only been through the strictest economy that we have been able to make the two ends meet.

But do we, as a general rule, employ every means whereby we may obtain the best results? I hardly think so. Are we using all our time as we should?

The days are so short, so they say, at this time of the year, but they seem to have 24 hours in them just as usual. So it is not the day that is short, but the daylight. Well, oil is cheap, and can we afford to burrow up like the woodchuck for the cost of oil and fuel? Would that be economy?

Perhaps it could be answered yes and no, but I do not think the up-to-date farmer, thinker and reader would answer yes. He knows better and will say that he who will not use every minute for work, study or self-improvement while paying for light and warmth might just as well economize by hibernating.

Eight hours' sleep is enough for the sleepiest, while in some cases five or six is sufficient. This being true, the average person requires seven hours' rest out of twenty-four. What is he doing with the remaining seventeen?

Two hours should be spent in eating and talking. The table is a splendid place to discuss what you are doing or contemplating; for then the housewife knows what you expect of her and will not frustrate your plans.

We now have fifteen hours left. Ten hours is as long as one should work during the day. Half of this time is spent, in the winter time on the average farm, in doing chores. The other half should be spent doing odd jobs, cutting wood, etc.

Still we have five hours left for self-culture, either for reading or playing cards, attending church or visiting the saloon. What an opportunity for advancement in both directions, but let us seek that which is good, elevating and godly.

I do not intend to give you a sermon, no matter how much you may be in need of one. I do not believe there is a place that working people can have the privileges we farmers have.

To use all our time to the best advantage is surely a good thing, but this does not insure success. There is something else. What is it? We will call it management. Without it there would not be any use of economy, for the two go hand in hand.

In order to have anything we must manage, and the better manager the more we will have. We cannot afford to cast off all thought of our farms during the long winter months, and when spring comes go into the nearest field and begin plowing for oats, and not yet know where we are going to plant corn, potatoes, etc. But we must know (to be successful), long before the time arrives to start the plow, just what piece of ground is to be put into peas, oats, corn, potatoes, millet, etc.

Wheat is something different. Sometimes we are obliged, by losing a seedling, to sow a field to wheat or rye that we did not intend to. But when we get at everything in a haphazard way, as some farmers do, it is not to be expected that we will ever possess much to be economical with.

I have said that without management there can be no such thing as economy. I can safely add that in negligence, management and economy both disappear.

Negligence has been the ruin of

many men, not in large things, but trifles. On the farm it is the farmer's worst enemy. To neglect anything, no matter how small, is no economy.

So many of us have fallen into the rut of "that's good enough for me," or "I'll fix it another time," that the first thing we know a mountain of small jobs is staring us in the face, when, if they had been taken in time, it would not have required one-tenth of the time and expense that it now does. The probabilities are that the person who forms such habits will not get the long-looked-for opportunity to straighten the crooks he has made.

E. F. BROWN.

HILLSDALE CO.

SUGAR BEET.

BY PROF. W. W. TRACY.

The profitable culture of beets for the production of beet sugar is largely a question of suitable soil and climate. Michigan, particularly that portion of it lying south of the latitude of the head of Saginaw Bay, would seem theoretically to be admirably adapted to this crop; not only is the soil suitable both in chemical and physical conditions but the climate, both as to temperature and moisture, is at least as favorable for the production of beets rich in sugar as any portion of the United States, and many trials made at the Agricultural College and elsewhere have proved that the practical outcome substantiates the theory. The knowledge of these conditions and the recently awakened interest in this problem of growing our own sugar leads us to present a few suggestions regarding the culture of beets for sugar.

It must be borne in mind that a factory for the profitable extraction of sugar from beets costs not less than \$200,000, and to be run profitably must be supplied annually with not less than 30,000 tons of beets, to produce which it will ordinarily require about 3,000 acres, and as beets can only be grown profitably in connection with other farm crops it would require the assurance that farmers working from 10,000 to 15,000 acres of land would annually make sugar beets one of their regular crops, to justify the building of such a factory. The profitable growth of beets for sugar requires no inconsiderable degree of special knowledge and skill which can only be acquired by experience, and no wise farmer would promise to make this an annual crop until he had satisfied himself that he could do it to advantage. So the preliminary step toward the establishment of sugar beet industry should be the interesting of the farmers of the vicinity in their experimental culture. Fortunately the labor expended on such experiments need not be wasted, even if the crop cannot be converted into sugar, for the beets are worth all and more than all they cost for feeding stock, and the farmer who has once learned their value for this purpose will be sure to give them a place among his annual crops.

SOIL.

Most farm lands capable of producing a good crop of wheat or corn can be made to grow a good crop of beets, but they cannot be profitably grown on a tenacious, wet, clay soil, or one which is very poor and sandy or excessively hard and stony. Rich, mucky soils like those of a reclaimed swamp will often give an immense yield of roots, which, though fine looking, are valueless for sugar-making because of the small proportion of sugar they contain.

MANURE.

Sugar beets do much better when the soil has been made rich for preceding crops than when the fertilizers are applied the same season. The use of rank, undecomposed manures or such as contain a large amount of nitrogen and cause an excessive leaf growth will result in poor shaped roots containing so little sugar that they cannot be profitably worked for this purpose; manures rich in phosphoric acid and potash are the most valuable. If the condition of the ground necessitates the use of a fertilizer the current season, the greatest care should be taken to have it evenly and thoroughly mixed with the surface soil.

SEED.

The profitability of the extraction of sugar from beets depends upon the proportion of sugar the roots contain, the desirable thing in the cultivation of beets for sugar being to get the largest possible yield of sugar into the smallest possible yield of beets. This is most fully accomplished in roots which are comparatively small, tapering and growing entirely below the surface—in fact are in most respects the opposite of the Mangel Wurzel, where large size, cylindrical roots, growing well above the ground are the most desirable. An immense amount of most patient and skillful labor has been expended in developing and establishing strains of beets which will give the largest yield of sugar in the smallest and most easily handled form and it is through the results of such labor that the profitable making of beet sugar is possible. There is no crop grown where the character of the seed is of greater importance than this—indeed success or failure will depend largely upon the kind of seed used. Careful investigation shows that the strains known as Klein Wanzleben, French White Sugar Red Top, and Villmorin's Improved Imperial Sugar, are far superior to all others, and that while the experienced grower can produce the most sugar per acre at the least cost by using the last, the first, because of its hardness and greater adaptability to varying conditions, is the best for the experimenter to use.

PLANTING AND CULTIVATING.

The great secret of successful and economical culture of beets is thorough preparation of the soil before planting. It is best to plow in the fall, leaving the ground in the furrows left by the plow. As early in the spring as the soil is dry enough to work, cultivate well and repeat this several times before planting. If fall plowing is impracticable, thoroughly cultivate the soil as soon as it is fit in the spring, then plow and before planting make the surface as fine and friable as possible. The seed should be planted as soon as the soil is in good condition which will not be likely to be before the middle of April, and it should be in before the last of May. We plant in drills, twenty to thirty inches apart, dropping from 12 to 20 seeds to the foot which will require from 10 to 15 pounds of seed to the acre. It is very important that the seed be well covered with not to exceed one inch of soil pressed firmly over it. As soon as the young beets have started sufficiently to make the rows visible they should be cultivated and the field should receive constant attention so as to keep the surface soil loose and destroy the starting weeds. When the beets are about two or three inches high they should be thinned so as to stand six to eight inches apart in the rows, and cultivation should be discontinued as soon as the roots have commenced to form. Often a crop is injured by late cultivation starting the plants into fresh growth when they should be maturing and developing sugar. Sugar beets ripen and become fit for harvesting as distinctly as do potatoes or corn, and they indicate that they are approaching this condition by the outer leaves turning yellowish and the top seeming to decrease in size owing to the curling of the central leaves. They should be gathered and stored when ripe or mature, for if left they may start into fresh growth which lessens the proportion of sugar.

Sugar beets of the best strains will yield from eight to sixteen, and occasionally as high as twenty tons to the acre, yielding from 10 to 18 per cent of sugar, according to the quality of the seed used and the conditions of growth. We understand that the State Experimental Station at Lansing will analyze free, any beets well grown in Michigan, from the best seed, and sent them by express, prepaid, with a statement of where and how they were produced.

For the Michigan Farmer.

THE GREAT DIVIDE POTATO.

By request of our mutual friend and editor, Mr. J. H. Brown, I furnish the following information in regard to the Great Divide potato.

This variety was originated in Cass county, Iowa, by Mr. F. B. Van Ornam, said to be from a seed ball produced in 1887 on the Early Ohio, fertilized with the Old California.

This potato has been advertised quite extensively, but it is more of a special soil potato than we like. There is no question but what this variety has been a success with the originator, and on loose, rich soils with plenty of moisture.

It belongs to the class of long white potatoes, but in adverse seasons will prong up very badly, more so on heavy, rich soils, and is affected in its form by any change of season. It is of fair quality and a good keeper, but we could not recommend it, except to those who have soil that is especially adapted to growing potatoes.

EATON CO.

W. E. IMES.

For the Michigan Farmer.

WINDMILL QUERIES.

I have been much interested in the different articles that have appeared in the FARMER in regard to geared wind wheels.

But one point upon which I hoped to obtain information has not been demonstrated in drawings nor explained in specifications. Perhaps it is for fear of advertising some one's make of wheel. What are the proportions and arrangement of the geared wheels?

I never have seen a geared mill and there is none very near here that I know of. As I have a second-hand, 18-foot pumping wheel which I wish to make into a geared mill, I ask for a little information through the columns of the FARMER.

My wheel should make 34 revolutions per minute. How fast should the vertical shaft revolve to get the best results?

In theory a geared wheel, when laboring, would have a tendency to creep around the vertical shaft out of the wind and so decrease the power when most needed. Is this practically so, to an extent making it desirable to overcome this tendency by some mechanical device? Are there such devices in use which satisfactorily overcome the tendency? I have an idea of an arrangement for that purpose. Is the good to be obtained sufficient to warrant the development of the idea? If not I do not want to spend any time or money upon it.

I think farmers need to go a little slow in these times about getting mills for grinding purposes. However, in many communities they are desirable, and where much water is to be pumped they are a great saving of time and labor. I think I would have a geared mill for pumping, as there are many other uses to put it to.

Since writing the above I have read again the article of J. G. J. of Livingston Co., in which he speaks of his wheel as "one that you can hold to the wind."

GRATIOT CO.

CHAS. C. FOOTE.

[It would require much more information than you give in order to "figure" the proportionate gear and speed of vertical shaft.

To us it seems doubtful whether you could transform your old mill into a power

mill, with vertical revolving shaft, and prevent the wheel from developing a creeping tendency when running machinery in a brisk breeze. In fact this has been a serious difficulty with some geared mills during recent years.

We hardly see how you happened to tumble upon an 18-foot pumping wheel. If it was an eight or ten-foot wheel we should not be surprised, but your copy states it to be an 18-foot wheel.

Our advice would be to go slow in spending much time or money trying to transform your mill into one for general power purposes.—Ed.]

For the Michigan Farmer.

THAT SELF-SUPPORTING ROOF.

Dwight Arnold, of Antrim county, writes that he is going to build a barn this spring, and wants to know how to raise the rafters on the self-supporting barn roof that recently appeared in the FARMER. Also how the ends of the barn are supported.

This latter question no doubt refers to the pressure of the grain or hay crowding out. I will answer the last question first. This is done by a three-quarter-inch iron rod running each way from near the center of the beam and fastening through the plates about two feet from the ends with a burr. This will not be much in the way, as it is so high up and close to the beam, and when it is farthest from the beam it is closest to the roof, so it is practically out of the way.

In answering the first question I will say that it is necessary to have a scaffold over the top of the barn, even with the plates, to work on. Fix a pulley at one end of the barn so that the pulley will be about eight feet higher than the scaffold above mentioned.

After the rafters are made complete, hoist them up by means of this pulley and commence raising them at the other end of the barn, staying them well. It will require four men to put them in position. When all complete this scaffold can be torn away and used for roof boards.

In building any building, always keep things secure for fear of a wind storm. With the rafters up and well nailed, and roof boarding on, the danger is over for an ordinary wind.

I could send drawings showing the outside bent and a side view of the barn frame, thereby showing how the girts and braces are placed, if it would not trespass too much upon the columns of the FARMER. These balloon frames can be built much cheaper and with less timber than the timber frame.

I. N. COWDREY.

GRATIOT CO.

[Send in the drawings.—Ed.]

For the Michigan Farmer.

LUXURIES THAT MAKE THE FARMER A MISFIT.

In a recent FARMER you call for experience in heating houses. Some years ago in fitting up a new house we put a big box stove in the cellar, and with furnace flues we comfortably heated five rooms at a cost of only \$40.

But it leaked gas and smoke so as not to be satisfactory. Recently we have put in a first-class new furnace at a cost of \$100, a reduced price, and without door air box, the air in the room is fresh, and it is much appreciated by the women folks, living free from dirt and litter in the rooms. It takes three-foot wood and saves labor.

But who can afford a \$200 or \$300 steam plant? This comparison leads one to think what a misfit farmers are just now as to enjoying the luxuries of modern life, compared with the salaried and professional classes of the city. These employ tailors and dressmakers, and rarely does the wife do her own housework. They sit under the instruction of \$1,500, well-educated preachers in fine churches.

The schools are costly and bonded for large sums. The professors and teachers receive higher wages than ever. All the better classes have their lives insured for their families' benefit, and not one of them has the capital invested for their education that the average farmer has in his farm. In fact, the farmer pays in part for their education, and not one cent of taxes do they pay on their business.

They have laws to protect them in their charges. You have no right, for instance, to employ a physician unless he has a diploma, and, if I understand it, you are liable to prosecution if you do not employ him when one of your family is sick. Just so with teachers and lawyers.

At a farmers' meeting held here lately, a speaker said the farmer should not buy anything; let the town people eat their Brussels carpets and pianos, and we should work with our old farm tools. "Well," says I, "this is a far-reaching principle; none now can afford to die or be born, for then the doctors and undertakers will have us sure—what's left of us."

GRAND TRAVESER CO.

H. VOORHEES.

[If we mistake not, our friend will stir up some discussion along this line. There is some truth in his statements, and we think many brother farmers will agree with him.

But the attack on professional men goes too far. For instance, no man or woman should be allowed to practice medicine unless thoroughly qualified. There is little danger of too many safeguards surrounding this profession. The introduction and spread of zymotic diseases alone, with their terrible results in an epidemic, shows the necessity of thorough qualification in medical practice. Other points we hope will be discussed by our readers.—Ed.]

Live Stock.

HOGS VS. HENS.

To the Editor of the Michigan Farmer.

I would like to occupy a small space in your valuable paper, of which I have been a reader only since last September, but would not be without the information it contains for five times the subscription price. One instance in particular: it saved me what hogs I have left. A recipe I found in it saved my hogs when the State Sanitarian's receipt failed. I would not be without that recipe for \$50.

I think if there was more written on the hog and less on the hen it would be more beneficial to the general farmer, as he cannot afford to spend his time with hens in the hurrying season. Hens are a good thing to pick up waste stuff, and for the wife and daughter to fuss with, if there are not too many of them. Imagine a farmer in a hurrying time stopping his machine to look after a setting hen. What will such a farmer amount to? I have seen that very thing done, and that man lost his farm after having it all paid for by his father. Had he spent half the time looking after a brood sow the result would have been dollars where, in the case of the hens, it would be cents.

CLAIRE CO., Mich.

Our correspondent, whom we are pleased to hear from, should remember that not all men think alike, or succeed in the same business. There are many farmers getting a steady income from poultry who would not succeed with hogs. All are wanted. For the man who can care for hogs properly they are what he should stick to. They bring in clean money, and utilize much that would otherwise go to waste. Capital in them is turned over quickly, and always at a profit to the good manager. In fact, to our mind no farm is complete without some hogs. They seem indispensable on a well conducted farm.—ED. FARMER.

For the Michigan Farmer.

SPRAY PUMPS FOR APPLYING INSECTICIDES ON LIVE STOCK.

While there is so much use being made of spraying pumps for protection of trees and vegetables against insects and fungous pests can sprayers be still further used to protect horses, cattle and dogs from their insect enemies? Decoctions of peppermint, or pennyroyal, or other aromatic or poisonous plants or bitter herbs, or of the outer husks of butternuts, black walnuts and hickory nuts, gathered and dried when green, or of pungent barks and roots, as sassafras or prickly ash, might make effective spraying fluids. Pennyroyal is said to be objectionable to mosquitoes. It would be but a moment's work to spray an animal before going to work in the morning, and at night to give it better rest; or to spray a cow before milking, morning or evening. If spraying will drive off obnoxious insects, it will give rest to an animal, save waste of nervous energy, and better retain the flesh. Perhaps such spraying has been done and results not reported. It may interest your readers to make a systematic trial. It would be a delight to feel that horses were freed from the great pain given them by the various flies by so simple a process. "A merciful man is merciful to his beast."

WAYNE CO., Mich.

[Spraying has been tried as a means of ridding animals and fowls of lice, and it has proved effective with proper insecticides. Fowls and fowl houses have also been sprayed with great advantage. We see no reason why spraying could not be made effective in the cases suggested by our correspondent.—ED. FARMER.]

DEHORNING IN GREAT BRITAIN.

The success which has followed the operation of dehorning in this country has caused the British farmers to experiment to some extent in the same direction, and the live stock journals there are discussing questions relating to it in much the same spirit as the American agricultural press did eight or ten years ago. Here is an extract from one which shows the trend of opinion upon the subject:

A good deal has been heard lately of the subject of dehorning cattle, some maintaining that the operation is, comparatively speaking, a painless one, while others are shocked at the cruelty. That the operation is painless no one would think of asserting; but far too much has been made of the alleged cruelty by the other side. Horns are weapons of defense, and in the bovines they are stout and strong to enable them to withstand the shock of battle when these animals engage in a fight. From the functions the horn is called upon to fulfill, it seems unlikely that it should be endowed by Nature with a great degree of nervous sensibility. The outside shell of the cow's horn is not susceptible to pain any more than the hoofs to which iron shoes may be nailed without pain. The central part of the horn is bone, which is not supplied with sensory nerves, and therefore not susceptible to pain. The only portion of the horn, therefore, sensible to pain during the operation of dehorning is a circular layer of formation tissue

which is well supplied with nerves. No doubt the cutting through this tissue is accompanied by a sharp twinge of pain, such as a person might experience by having a tooth drawn, but the pain cannot be so great as that inflicted upon young male animals by the operation of castration, and yet no one objects to this latter necessary operation. There are other operations, as a matter of fact, daily inflicted upon our domestic animals which must cause very much greater pain than dehorning, and yet these operations seem to pass unheeded. If the operation has to be performed in as nearly a painless fashion as possible, then the plan to pursue is to operate upon the calf when the button of cartilage that will grow into a horn is easily removed with a knife. Those who desire hornless cattle, and yet object to the operation of dehorning, should breed polled cattle. This is easily accomplished by the introduction of a polled bull into the herd and careful selection afterwards. For facility of handling, polled cattle are in every respect an advantage, and no doubt in time to come the horned breeds will disappear, as they have practically done in sheep, the ancestors of which were all horned. Until the time arrives when the polled breeds are permanent, the calves should be dehorned to save trouble afterwards.

LINCOLN SHEEP.

This week we present a group of Lincoln ewes, very good specimens of this breed of the English long wools. This is one of the largest breeds of sheep in existence, its only competitor in this respect being the Cotswold. The Lincoln is an ancient breed, and takes its name from the county, or shire, of Lincoln England. There is a good deal of marsh and low land in that section of England, and when the demand for land caused it to be drained and improved, an old breed of sheep, long known there, large,



A GROUP OF LINCOLN EWES.

coarse, and with a long staple of wool, was found to be the best breed for that particular locality, owing to its hardiness and ability to withstand the influences of the marshy lands so fatal to all other breeds. The luxuriant, but rather coarse herbage, better suited for the requirements of cattle than sheep, seemed to suit the Lincolns, and the farmers determined to improve them rather than attempt to acclimate other breeds to the then existing conditions. At that time the Leicester, through the work of Bakewell, had attained a great reputation, and a large infusion of its blood, through the introduction of rams, was secured by owners of flocks of Lincolns. This improved its form and feeding qualities while retaining the size, hardiness and heavy fleeces which gave the breed its value. Thus we see a good deal of resemblance between the Leicester and Lincoln in form and general appearance; but the Lincoln is larger, not so fine in the bone, nor so long in the body, standing higher, with a heavier fleece of white lustrous wool. The Leicester's fleece always shows a grayish tint, and the animal, from receiving greater care, has a more thoroughbred appearance than the Lincoln, is finer in the bone, and very symmetrical in body. The Lincoln is the heaviest shearer of the long wools, and this has caused it to be used as a cross upon many Merino flocks in South America and Australia, the resulting fleece being fine, lustrous, and long-stapled. The Lincoln has got quite a hold in this State, and through the enterprise of Michigan breeders has a prosperous national organization and a flock register. Upon low lands, or the heavy clays to be found in many of our counties, the Lincoln does well, probably better than any other breed. It is not so susceptible to diseases of the foot from pasturing on low lands as most other breeds. It demands good pastures, and must not be left to itself during the warm dry season of mid-summer. It is the fatal mistake so many make with the Lincoln. The scant pasture upon which a Merino would do all right will not do for the Lincoln. It must have succulent food and sufficient in quantity to sustain its great growth. Supplemental forage crops and roots are an essential to secure the great growth and fine fleeces for which the breed is noted. Those who will not provide these essentials should leave this breed alone. Their best qualities will be lost unless the conditions which produced them are continued.

FEEDING HOGS FOR QUALITY OF MEAT.

A bulletin issued by the Indiana Experiment Station discusses this subject. It says the market to-day demands pork with a fair admixture of lean meat, such as cannot be produced, as a rule, by a pure corn diet. The best results will be secured by using two or more kinds of grain, and also skim milk, if it can be obtained. The general run of feeding experiments in this country have shown that where corn meal and shorts were fed, the meat showed more lean than when corn was fed alone. At the Wisconsin Experiment Station, a mixture of 431 pounds of corn meal and shorts, half and half, fed wet, produced 100 pounds of gain, as compared with 784 pounds whole corn or 517 pounds corn meal, to make 100 pounds gain.

The shorts are muscle-forming foods, and where these are used a more vigorous pig usually results. Ground barley or oats may also be fed with corn to great advantage. There are many farmers in Indiana who grow oats extensively, besides corn, who could feed them to stock hogs, with corn, to far greater profit than selling them at 13 cents per bushel.

In a letter to this Station a breeder says: "My own experiments in feeding hogs to produce the best quality of meat have been similar to those you speak of and those of Prof. W. A. Henry, only I did not feed as much meal or corn. I fed ground wheat and oats in equal parts, and not more than one-fourth corn. I also fed skim milk and ripe pumpkins in connection with these, and secured a much larger per cent of lean meat than when fed exclusively on corn, and also a much stronger bone and a healthier hog, and of course better pork."

The farmers of Indiana ought not, the bulletin says, to allow a pound of skim milk to go to waste, from the creameries or farm dairies, and this applies with equal force to

To-day \$6 per 100 lbs was paid for native lambs of the top quality, bred and fed in Iowa, which goes to show that as good an article can be produced in Illinois or Iowa as at Fort Collins, Col., provided the proper care in feeding and other attentions are followed. There is no good reason on earth why our buyers should be compelled to go to Colorado for prime lambs.—Chicago Journal.

Last week Michigan wool lambs sold up to \$6.50 at Buffalo, the top price of the year. With feed stuffs as cheap as at present, and lambs selling around \$6 per hundred, it is safe to say that feeders have made a good thing out of their work the past winter, which will compensate them to some extent for the low values of some other farm products.

The attraction at the yards to-day was a small lot of lambs, sent in by Charles Rountree, Yountsville, Ind., that trace their lineage back to a small lot of the Tunis sheep that were imported into this country in 1779 by the United States government. They averaged 80 pounds, and brought \$5.25 clipped. They are fine wool of high degree.—Chicago Journal. We very much doubt if these sheep carry much blood of the Tunis sheep. The high price at which they sold, fully 75 cents per hundred above the range of the market for clipped sheep, looks as if they sold on their pedigree rather than on their value to the butcher. The Tunis sheep was originally a Spanish Merino, or at least of the same lineage, introduced into that country when it was a part of the Roman empire. It is likely these sheep have been crossed with the American Merino until but little of the original Tunis blood is left.

A. H. FOSTER, who is a well-known stock-breeder of Allegan county, writes: "I note in a recent issue a good deal about hog houses, and especially about the plans for an underground hog house. I have had some experience with underground hog houses and feel like sounding a warning to my brother farmers who contemplate building such houses for hogs. Hogs in order to do well want a dry as well as warm place in which to sleep, and also want plenty of sunshine to keep them strong and healthy. My experience is that underground pens are too damp, and as it is desirable to have them in several different pens, especially when pigs are small or being farrowed, it is difficult to have an underground house with an opening and yard for each pen. I will offer no extended plan, but by all means in building a hog house have the hogs on a floor above ground, and every pen opening to an outdoor yard where they can get to the sunshine and ground."

When writing advertisers mention Michigan Farmer.

Smarting and Burning.

Felt as Though Flesh Had Been Scalded—Limbs Were a Mass of Fiery Rash—How She Was Cured.

"I had a great deal of trouble with eruptions on various parts of my body. They itched intensely and were accompanied by a smarting and burning sensation. It felt as though my flesh had been scalded. I thought it was scrofula and used remedies to which I had been accustomed. It disappeared, but would come back. My limbs itched and burned terribly. The physician said it was eczema. I began taking Hood's Sarsaparilla and took six bottles. Since then I have been able to do my work, including washing, ironing, and housecleaning. During the summer I was out in the sun and picked many quarts of berries and I have worked in the garden. I have had no return of the disease, and I have felt better in other ways."

MRS. IDA M. POTTER, Conneaut, Ohio.

Hood's Sarsaparilla

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Valuable book premium to purchasers of COOPER SHEEP DIP between April 1 and July 1: "The Diseases of Sheep—their Prevention and Cure," 65 pages. Apply WILLIAM COOPER & NEPHEWS, Galveston, Tex. Send receipt or say where bought. If you cannot buy locally send \$1.75 for \$2.00 (100 gallon) packet, to

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W. O. WILSON, Okemos, Mich., proprietor of the Michigan Central herd of IMPROVED CHESTER WHITES. I have a few head of '96 stock (both sexes) at reduced prices to make room for new comers. CHOICE LIGHT BRANSMAS. Eggs, 75 cents for 13; 26 for \$1.25.

WANTED to EXCHANGE registered Jersey heifer for young pigs. Address JOHN VAN NORMAN, Southfield, Mich.

EGGS for hatching. B. P. Root from select pen \$1 for 13; \$1.50 for 26. A. A. WOOD, Saline, Mich.

WE can give you BARGAINS in POLAND-CHINA PIGS and B. P. R., two grand yards. Eggs 15 for \$1. Write WILLARD PERRY or Hastings M. H. BURTON, Mich.

A POINTER FOR STOCK-BREEDERS.

As an advertising medium I prize the MICHIGAN FARMER highly. Its worst feature is, that it keeps me with a will in my hands most of the time to keep pigs enough to meet the demand it creates for them.

OKEMOS, Mich.

W. O. WILSON.

STOCK NOTES.

For clipped lambs the highest price yet reached is \$5.50 per hundred. Quite a bunch of Michigan lambs brought these figures.

A BUNCH of Michigan wether sheep sold on Saturday last in Buffalo for \$5.50 per hundred. They averaged 112 pounds. This would make them worth \$6.16 per head, certainly a handsome figure.

"SHEEP IN AMERICA."—This is the title of a handsome little work just published by the Zoener-Raymond Disinfectant Co., 16 Atwater St., Detroit, Mich., manufacturers of Zenocum—the great sheep dip. The various breeds of sheep are described by the best authorities and illustrated by typical models done in the highest style of the engraver's art. Judge Wm. Lawrence tells of the injury inflicted by free wool; J. E. Wing writes of the future of the American sheep industry; Mortimer Levering tells about Shropshires; John E. Springer, of Southdowns; H. A. Daniels, of Lincolns; W. A. Shafer, of Oxford; A. A. Wood, of American Merinos; Geo. Harding & Son, of Cotswolds; J. E. Wing, of Dorsets; O. E. Lincoln & Son, of Ramboulllets; J. H. Taft, of Hampshires. This useful little book will be sent to any address for a 2-cent stamp to pay postage. Address as above.

The Horse.

MISSTATING THE FACTS.

The British, French, German, Austrian and Russian governments, not to speak of other minor powers, grant their horse breeders most liberal help, leaving the United States the only great nation refusing absolutely to extend a helping hand in that direction. The sugar planters, the wool growers, the cattle men, the trusts, the manufacturers, the iron masters, the growers of tobacco and the representatives of many other lines of business are all subjects of governmental care and protection; but the horse breeders, the men who have accomplished more in a given length of time than the men of any other nation similarly engaged have been denied assistance on all hands and at all times.—*Chicago Horseman*.

Our usually fair-minded contemporary has misstated the facts in the above paragraph. It is true the United States government does not aid horse breeders as do the foreign governments referred to. But when the *Horseman* says other lines of business and live stock have been made the subjects of governmental care and protection while horse breeding has not, it is entirely wrong. The same protection afforded cattle, sheep and hogs has been given horses. There is a duty upon all classes of horses brought into the country, except those of recognized breeds imported for breeding purposes to improve the horse stock of the country. Thus the horse raiser can import the finest animals he can get without duty, and their progeny, when ready for sale, is spared competition with foreign-bred horses. It has been so for many years. The home market is assured to the horse-breeder just as it is to the breeder of cattle, sheep and hogs. The government has never made any distinction between them and has cared for and protected the horse interest the same as the others. We refer our contemporary to the various tariff laws in force since 1890 as proof of what we have asserted. In the tariff bill now before Congress the schedule on live stock was as follows:

ANIMALS, LIVE.

215. Cattle valued at not more than twenty dollars per head, if one year old or over, six dollars per head; if less than one year old, two dollars per head; any cattle valued at more than twenty dollars per head, thirty per centum ad valorem.
216. Hogs, one dollar and fifty cents per head.
217. Horses and mules, valued at one hundred and fifty dollars or less per head, thirty dollars per head; if valued at over one hundred and fifty dollars, twenty-five per centum ad valorem.
218. Sheep, one year old or over, one dollar and fifty cents per head; less than one year old, seventy-five cents per head.
219. All other live animals, not specially provided for in this Act, twenty per centum ad valorem.

HORSE BREEDING.

Many people consider that the ubiquitous bicycle is about to lessen the demand for horses. A few city people may have for the time being turned their steeds to grass on account of the bicycle, but if a general census were taken it would be found that nine-tenths of those who ride bicycles never owned a horse. There is not the slightest fear that this valuable servant of man will be done away with to any appreciable extent. When railways were first introduced the abolition of horses was predicted, but instead of this being so it was found they were all the more needed as indispensable helps to greatly increased traffic.

We have frequently, says an English journal, deplored the fact that the majority of our farmers pay little special attention to the breeding and rearing of horses. They consider any mare good enough to get a foal, and the result is the production of unsuitable and unsaleable weeds. We breed some of the best horses in the world, fetching excellent prices, but deducting the money obtained for them from the total, leaves the average value of our horses very low indeed. The *Farmer and Grazier* has frequently pointed out that one of the first steps towards improving the breed of horses is the abolition of inferior and diseased sires. This matter the New South Wales government is endeavoring to attain by the introduction of a stallion tax, and it is high time some effort in a similar direction was made in this colony. There is always a demand for good horses, and that demand can be greatly increased by better breeding in future. As previously set forth at length in this paper, we have the India market to absorb our surplus in excess of local wants. Every attention must be given to the choice of good sires, the value of whose service will be amply compensated for by the increased value of the progeny. The European fashion of associated ownership of sires is worthy the consideration of farmers, and the government might with advantage lend assistance by copying on a small scale the government stud institutions of France and Germany.

Every farmer should make it part of his business in future to keep good breeders. Large draft animals will always find a ready demand in cities, and the same may be said of good saddle horses and drivers, and the farmers who turn attention to this part of their industry will undoubtedly find an early reward for their enterprise.

"BROWN'S BRONCHIAL TROCHES" will quickly relieve Bronchitis, Asthma, Catarrh and Throat Diseases. Sold only in boxes.

WHAT CAUSED THE SLUMP IN PRICES.

At a meeting of the Texas Live Stock Association, Col. Henry Exall, sent a paper on "The Horse Industry" to be read, in which he pointed out some of the reasons which caused such a great drop in values of trotting bred horses. Among other things he said:

The great decline in prices in 1893-6 was to a great extent brought about by the fact that during the prosperous times, when horses were very high, thousands of parties without any practical knowledge, rushed into the breeding business, using anything in the line of stallions and mares that was ever remotely related to anything that had trotted, paying no attention to size, good looks or soundness.

In a great many instances the stallions and mares upon so-called trotting farms failed to produce more than two or three per cent of horses that could be made to go in 2:30. Of course this meant ruin and disaster whenever this character of stock was forced upon the market, as intelligent breeders would not buy them and to the general public they were of no more value than the ordinary horses of the country.

This indiscriminate breeding of trotters that could not trot and had very few other desirable qualities very materially helped to increase the number of horses in the United States from about 11,000,000 in 1866 to about 16,000,000 in 1890. About this time the country began to feel the approach of an impending panic, money began to be scarce and many parties who had other business interests to protect found it necessary to close out their horse business so as to concentrate their funds and accordingly consigned their stock to the auction market.

The decline in prices was precipitated and intensified by the fact that thousands of breeders all over the country, discouraged at the outlook and influenced to some extent by the example of others, unreasonably, or in some cases from absolute necessity, consigned all their horses, regardless of condition or fitness for sale, to the auction markets. As no one at this time was buying breeding stock the majority of these horses sold at ruinously low prices and the very publishing of these low prices tended to keep up the panic and caused almost total abandonment of the horse breeding industry.

HORSE GOSSIP.

MONROE SALISBURY thinks Azote the greatest trotter ever foaled. He hopes to have him on the track this season.

INDIANAPOLIS has dropped out of the Grand Circuit. It seems the pace was too fast for the residents of the Hoosier capital.

A CONSIGNMENT of trotting stock was recently sent to Honolulu from San Francisco. In the lot are mares, stallions, colts and fillies by the leading California sires.

THE board of appeals of the American Trotting Association will meet in this city at the Auditorium, Tuesday, May 4, at 10 o'clock a. m., for the transaction of such business as may be presented for consideration.

GEN. B. F. TRACY, new president of the New York State Agricultural society, believes that the trotter should be bred and developed to go fast in harness without the use of weights and restraining straps, and he wishes to open a few purses at the State fair, Syracuse, in August, for horses that go without hobbles and toe weights and that do not wear a heavier shoe forward than eight ounces.

WISCONSIN, Illinois, New York and Pennsylvania, all have measures to control racing before their legislatures. Canada also has one, and we hope to see the Windsor merry-go-round summarily squelched. By the way, the legislature of this State should consider the necessity of a law controlling racing and betting. With other States passing such laws, this State is likely to be overrun with race track gamblers.

A. F. SMITH, who has been racing in Guatemala with five horses, recently reached New Orleans. He won a number of purses ranging in value from \$1,000 to \$3,000. There are only two race meetings in that country every year, and, according to Mr. Smith's report, it requires a little fortune to keep a horse in Guatemala, hay being \$125 per ton and oats \$7 per 100 pounds. By the way, wouldn't that be a good country to ship our surplus hay to?

SHOULD the Wylie bill become a law, Milwaukee sports will have to look elsewhere for horse racing this year, says the *Milwaukee Wisconsin*. It will not only be a blow to running races, but also to trotting races, and the chances are that the sidewheelers will have little opportunity to rake in purses in Wisconsin the coming season. The Ideal Park crowd wanted the earth with a fence around it, but now they are willing to come off their high horse and compromise with the Milwaukee Jockey Club on the 30-day bill. It is a difficult matter to wholly tell just what the senate will do in regard to racing. A strong effort will be made to kill the bill and, failing in that, the horsemen will endeavor to secure a 30-day bill. President Bush, of the Milwaukee Jockey Club, has not made any arrangements as yet for the coming season in this city, as he is awaiting the result of the fight in the legislature at Madison. The horsemen, as usual, when they had the opportunity, disgusted the people with their fake merry-go-rounds, which ran month after month, and now

they are likely to be driven out of the State entirely.

A WRITER in the *Chicago Horseman* says: In England at the present time there is a great dearth of good saddle horses—not hunters—but strong, well broken, docile animals, with easy action, suitable for ladies or elderly gentlemen. Hackney bred ones are very showy. Unfortunately this blood does not seem to niche well with the thoroughbred. This was demonstrated at the thirteenth annual Hackney show held in London, March 2 to 5 last. The old-fashioned sort, and those with a strain of thoroughbred, were about equally represented in the entries, which consisted of 283 stallions and 141 mares, but the old-fashioned ones carried off all the prizes. The scarcity of good riding horses was much commented on during the show. One well-known peer, who is a recognized judge in equestrian matters, remarked that it was many years since he had found one to suit him. Good horses of this class command very high prices, twenty-five hundred dollars being considered cheap for a showy park hack. Surely the Kentucky blood could come to the fore and fill this want. Our trotting bred mares niche well with the thoroughbred. Once convince the English breeder of this, and a demand for several thousands of our well bred young matrons would be immediately created.

At present there is an active demand for sound, shapely trotting bred stallions standing about sixteen hands or over and weighing twelve hundred and fifty pounds or thereabouts. Never at any time in the history of the trotter have buyers discriminated so sharply against small horses, standing, say fifteen hands or fifteen hands one inch at the shoulder and weighing about one thousand pounds. Let a stallion of this size be as well bred as possible, grant him even a fair measure of speed and yet he will not sell to advantage. On the other hand, take a horse of the size first mentioned, let him be up headed, stylish and hard colored, but possessing not more than three-minute speed and he will not be many days on the market without finding a purchaser at a figure that leaves a nice profit to his breeder.—*Chicago Horseman*. We have been preaching the doctrine of more size and style in the horses being bred in this State for the past two years. Too many forget everything else but speed, and now speed is so plentiful that it is as cheap as dirt, while the large, handsome horse is more sought after than ever. Many stallions possessing extreme speed have proved as worthless as scrubs because their get had neither style nor beauty to recommend them.

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Every bottle of **Caustic Balsam** sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address
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You MUST in the hurry of spring plowing, but why not cure the dailies shoulders while he works? **BICKMORE'S BALM CURE** will do it. Also for any sore on Horses or Cattle. Sold by dealers. Sample mailed for 10 cts. **BICKMORE'S BALM CURE CO.** Box 704, BILLOWS, ME.

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REGISTERED HOLSTEINS of both sexes and all ages for sale from my World's Fair prize-winning herd. 50 head to select from. Prices low. **B. F. TOMPSON**, Detroit, Mich.

CRYSTAL SPRING STOCK FARM. **JERSEY CATTLE**, bred for intrinsic value, in individual merit and future usefulness. Rich cream and butter product, coupled with fine form and good constitution first consideration. Stock for sale **O. J. BLISS & SON**, Silver Creek, Allegan Co., Mich.

BEEF IS WANTED,

AND THE SHORTHORN IS THE ANIMAL TO PRODUCE IT.

20 FINE HEIFERS OFFERED on very reasonable terms for 30 days. **THEY WILL NEVER BE CHEAPER.** A few choice Merinos—Come quick if you want them. Come or write. **W. E. BOYDEN**, Delhi Mills, Mich.

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SHROPSHIRE HALL STOCK FARM.—A grand lot yearling rams from imported stock, good enough to head any flock. Also yearling and two-year-old ewes bred to choice rams; ewe and ram (rams: none better). **L. S. Dunham**, Concord, Mich.

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LARGE ENGLISH BERSHIRE and **SHROPSHIRE** sheep highly bred. Call or address **MERCHANT KELLEY**, Woodstock, Mich.

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The Poultry Yard.

From our special English Correspondent.
POULTRY IN YORKSHIRE.

The agenda paper as regards practical questions was not very crowded at the recent annual meeting of the Yorkshire Agricultural Society, but there was one proposition of a thoroughly valuable character which, as it was negative, we cannot allow to pass unnoticed. Mr. Staveley proposed that, in view of the importance of poultry as a national food supply, and in order to encourage this much neglected branch of farming, prizes be offered for practical breeds of poultry at the annual exhibitions of the Society. We farmers are very apt to complain that the wheels of the political wagon require frequent oiling; the conveyance does not move sufficiently fast for us; it is so essential in the view of governments that what is done in the agricultural interest should be done safely rather than speedily, that legislation assumes that phlegmatic character which we so constantly deplore. Now there is no more tardy body than the agricultural community; for a generation we have bitterly complained that the continental producer has taken possession of our egg market, that poultry is imported into this country in increasing numbers. For a generation the French have habitually carried out first-class displays of dead poultry in Paris and elsewhere, details of which have been furnished to the farmers of England, who have been impressed with the pecuniary importance of the work. A few years ago the committee of the London Dairy Show, and two years ago the committee of which Sir Walter Gilbey is chairman, made great efforts to introduce properly fed or fattened poultry into the British market by means of publicity to be gained and instruction afforded at the great shows which they have since carried out. At Smithfield last month the great Table Poultry Show of the year was opened to the world, and many hundreds of specimens showing what can be done by the aid of skill and perseverance were exhibited. If anything has been once and for all determined it is that the modern system of fattening poultry is practical and profitable and worthy of wide extension; and yet almost simultaneously with the publication of this doctrine, through the medium of the most perfect of all object lessons, the Yorkshire Agricultural Society decline to be any party to a display which, we take it, practically has this end in view.

For fifty years or more Yorkshire has been the headquarters of the "fancy" poultry community; within the county there are many hundreds, it may be thousands, of little breeders who take as much pride in the "spangles" and "pencils" as Mr. Booth takes in his Shorthorns or Mr. Hutchinson in his sheep; indeed, the latter gentleman, like Mr. Staveley, is himself a breeder of game fowls of high character. The poultry industry in Yorkshire, therefore, is already a considerable one, but it is an industry which is not conducted upon the right lines, although it may, and probably does, afford both profit and amusement to those who are engaged in it. It will be admitted that poultry shows are conducted in all parts of the country, and especially in Yorkshire, but at these meetings the birds which are alive are essentially birds of feather, birds produced for the purposes of amusement, and those who own them utilize them almost entirely in connection with a harmless species of sport—perhaps a better word would be excitement—in which they exhibit against each other. For the table a bird should possess small bone and abundant meat of fine quality upon the best parts of the carcass; the skin should be delicate, soft and thin, and the bird should possess the faculty of precocity and early maturity; but what do we find? In the vast majority of the pure breeds the necessary qualifications are entirely absent; the bone is large, the coarse meat more or less abundant, the breasts short and narrow, and the skin thick, coarse and tough. The principle of breeding poultry meat is practically identical with that which guides the producer of beef and mutton, with this difference, in England at all events, that most of our breeds of cattle and sheep have considerable meat value; whereas, with but few exceptions, our breeds of poultry have not. The Southern breeder produces stock for use by the farmer, who improves the quality of his cattle by its aid. It provides him with steers which feed better, which provide meat of superior quality, and which mature early. The breeder of Lincolns or Leicesters provides rams for the improvement of the ordinary flock of the mutton-producing farmer, and by their aid his lambs grow into more money than would otherwise be the case. Yorkshire is renowned as one of the chief homes of the best beef-producing Shorthorn, the best mutton-producing sheep, and the best pork-producing swine. Is it to ignore poultry meat, which, though a smaller department of the farm, is neither to be despised nor ignored? What the pedigreed Shorthorn is to the beef-producer, the Dorking, the Indian game, and the English game are to the poultry feeder; but the facts are not known, and they are not likely to be known, so long as the great Agricultural Society prefers to ignore them altogether.

Since the introduction of the two chief Oriental breeds, the Cochins and the Brahmas, hundreds of thousands of pounds have been

spent in their cultivation, and with what result? They are useless for the table, they have deteriorated the table properties of thousands of flocks of poultry; yet they remain with us because they are fancy fowls and have numerous admirers. There are, however, many other breeds which stand on a similar footing, such as the Plymouth Rock, the Orpington, the Polish, the Spanish, and the Wyandotte, neither of which having any special merit of its own, and being breeds of but recent manufacture in most cases, can transmit it in the process of crossing. If poultry breeders were educated, as they can be, to utilize the real utilitarian breeds instead of the purely fancy breeds, millions might be saved to this country. The market is enormous, and it is never satisfied, the demand for fowls of the highest type being almost always greater than the supply. Those who actually know what the market is are aware that for fattened poultry which have been finished by cramming or forced feeding, upon oatmeal, milk, and suet, for example, are in a position to show that while prices realized for such birds are from 50 per cent to 100 per cent higher than those realized for the average fowls of the farm, the net profit realized is not only proportionately greater, but almost always satisfactory even when farm poultry realizes no profit at all. A display upon the lines of the Dairy Show and the Smithfield Table Competition would not only be a splendid addition to the Yorkshire program, but it could not fail to prove an object lesson to thousands of the smaller occupiers of land of the most valuable description. I trust that in all your State shows this important "line" of agriculture is encouraged.

YORKSHIRE.

AGRICOLA.

MARKETING EGGS.

At the meeting of Snowville (Me.) Grange, February 6th, H. B. Howard spoke upon the question of how to realize the most from eggs. His advice was to get eggs into market within twenty-four hours of their being laid; then there will be no reason to complain of the prices received. If you can send them to market in such shape that customers can depend on them every time as being strictly fresh and all alike, there are customers who will take all they can get the year round. The egg that is a week old is well on the road to being, if not exactly stale or quite near it. A farmer who has sent his butter to one place for eighteen years always gets a good price, for he makes an extra article, and his customers can depend on the uniformity of its quality. This man had some friends who asked him if he could not get a market for their eggs at this place. He replied that they could not send the eggs fresh enough, for the firm kept a man going over the same territory every day to pick up the eggs in order to make sure that they were strictly fresh for the table. Many farmers do things that if they were in the customer's place they would be the first to make a fuss and they surely would never trade with one who would give them the same quality of eggs that they carry to market. Small, dirty eggs are not fit to send to market as they lower the price for the whole case if there is a dozen of them put in. The price for the whole is made by that one dozen and it reacts on the whole of the eggs that are sent from that place. If the market calls for a large, brown shell Leghorn egg, furnish that kind. Find out what your market calls for and furnish it; don't expect to get the best price if you don't furnish the best goods. In Mr. Howard's experience in buying eggs for eight years he has found that those who keep the Brahma, Wyandotte and Plymouth Rocks and their mixtures get as many eggs in number for the year as those who have Leghorns and a good deal more in weight. He believes that eggs ought to be sold by the weight.

PARASITES IN POULTRY.

All who have had to deal with poultry as an adjunct to the farm must have had experiences of the serious trouble caused by parasites at times. Perhaps it is a setting hen, and her nest is invaded with poultry lice, which will cause her to leave her eggs before they are hatched. These parasites are most injurious to young chickens and brood hens. Setting hens ought to be examined by parting the feathers with the fingers, and if parasites are noticed prompt remedies must be applied, or the hen will certainly leave her nest from the irritation caused. If the brood hen has the run of a dry ashbin wherein to dust herself, she will soon rid herself of parasites. All the better if dry-powdered carbolic is mixed with the ashes. Then the nest must be overhauled; the straw or other material used must be taken out and burned; the nest itself, whether an old box or a fixed nest in the fowlhouse, must be either washed with hot water and soap, or freely sprinkled with a solution of carbolic, which is death to most parasites. To show the necessity for care in the management of a fowl run, it is only necessary to study briefly the life history of the fowl mite. This very minute creature is yellowish white to dark red in color, according to the quantity of blood it has absorbed. Both sexes are armed with a sharp rostrum, or beak, and the female is the more bloodthirsty. These feed upon the bird chiefly at night, hiding away in the crevices of the nest by day. They are most prolific, and can remain for months without food, so that a brief removal of the fowls from the runs is useless. The ova will be found in all kinds of crevices about

the fowlhouse. They hatch out rapidly. The young at first are of a silvery white with six legs like a true insect. They moult a number of times, and as they grow become darker in color. Light and air are distasteful to them; damp, dark or badly-ventilated fowlhouses are where they flourish best. To ensure freedom from these pests it is a good plan to wash every part of the inside of the fowlhouse with a wash made by boiling together lime, sulphur, and soft soap. If this is done every spring and autumn, and the fowls given a proper dust-bath, all trouble from the parasite may be easily averted. Finely-shredded wood shavings make a far better nesting material than straw, and should be used wherever they can be obtained.

POULTRY NOTES.

SORGHUM seed is an excellent seed for poultry. It is regarded by many as superior to wheat for laying hens. A Southern poultry raiser who keeps 600 hens says that one acre of sorghum will make enough feed to feed 100 hens all winter. Very little sorghum is raised in this State, but a small patch might be found useful for the poultry.

It is surprising to read the experience of poultry writers with incubators. Some report great success, others positive failure after repeated trials. Might not the different results arise from differences between the parties as well as in the machine. One thing seems certain, only the closest attention will give any degree of success with an incubator. The ancient Egyptians seem to have attained greater success with artificial incubation than our modern experimenters.

A POULTRYMAN says: "The best litter in the poultry house is the refuse from the hay loft. Hay seeds are regarded as invigorating, but the benefit derived from them is due to the work induced by the seeds. A flock of hens will scratch and work all day in litter from the hay loft, as the seeds are a complete change for them. Being small, and covered with the leaves and dust, the hens must work to get them. The leaves from clover hay will also be relished, and are among the best food that can be supplied in winter."

THERE can be no overproduction of poultry and poultry products as a profitable income from the farm, says a writer in a poultry journal. The past year England paid \$2,000,000 for poultry and eggs from other countries. Their consumption is greatly on the increase all over the world, notwithstanding the old countries are now raising more than ever before. It requires feed, and America has this in the greatest abundance, and it never was so cheap as now or was last year, and can produce poultry to feed the world if she will. We have the improved breeds, the best knowledge of care and housing, excellent cars for transportation, and there should be no limit to the production for American tables or for the demands of our neighbors. With all of which we agree except the statement that, there can be no overproduction of poultry products. The price of eggs, at present shows this to be incorrect. The manner in which poultry raising is extending, not only in this but in all civilized countries, is bringing us close to the time when there will be a surplus, and prices become so low as to render the business unprofitable. Then it will be the survival of the fittest, and the careless and inefficient will have to turn their attention to something else—to the benefit of those who are intelligent and energetic enough to manage their poultry in a proper manner.

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Farmers' Clubs.

CONDUCTED BY A. C. BIRD.

All correspondence for this department should be addressed to A. C. Bird, Highland, Mich.

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A WORD OF EXPLANATION.

The delay in publishing the papers and addresses given at the State Association has been a truly vexatious, but also truly unavoidable. The work of the department has so rapidly increased during the past few months that each week we have been compelled to decide between that which could be left over and that which must immediately appear. By this process the paper appearing in this issue has been unavoidably delayed from week to week. We trust, however, that those who have criticised us for not more promptly obeying the instructions of the State Association will understand the situation, and accord with us in the policy we have carried out.

LEGISLATIVE NOTES.

The Jibb anti-color oleomargarine bill is reported to be yet in danger.

The passage of the Warner toll road bill in the senate is another victory of the people over the corporations. The house is expected to soon pass the bill.

Representative Hammond's anti-trust bill is attracting much attention. At the request of many interested parties we shall comment upon the measure somewhat at length in an early issue.

Again the power of the expressed will of the people has been manifested in legislative circles. The anti-contract prison labor bill has been killed by the house by a vote of 49 to 29.

The protests against the repeal of the mortgage tax law are coming in by the hundreds. The proposed repealing act which has already been passed by the senate will surely be killed by the house, and will be another victory for the people.

FARMERS ASK FOR LESS TAXATION.

The question of the expenditure of funds for the maintenance of our State institutions, is one of the very practical and important matters which are now claiming the attention of our legislature.

Desiring to call the attention of our legislators to some of the phases of the situation, as at present existing—even at the risk of repeating that which may already have been said—is deemed a valid reason for this brief article.

No one will dispute the assertion that it is a difficult matter to properly curtail expenditures in private affairs, and that it is very much more difficult to properly restrict expenditures in public affairs. Nevertheless, if the individual is to remain solvent at the present time, expenses must be lessened, and it is an act of simple justice to require of our State institutions that they share in these restrictions which present conditions compel so many of the individual taxpayers to undergo. The present is not the proper time to enlarge the work and to extend the scope of our numerous State institutions.

Many hard-pressed taxpayers are to-day striving to save "the mortgaged farm" and, to accomplish this, privations severe are endured by the inmates of many homes. It should not be forgotten that it is "the people" who create and who maintain. Will it not then be an act of wisdom on the part of their representatives to receive direct from those who contribute, rather than from those who disburse?

The farmers of Michigan are asking, both individually and through their State associations, that taxation be reduced, and the response to this most proper request from the present legislature will be carefully noted and recorded.

As has been repeatedly stated, there is no desire or disposition, on the part of any of the farmers' organizations, to cripple or to unwisely restrict the proper work of any State institutions, but "Self preservation is the first law of nature."

The farmers of Michigan are paying an unequal, and therefore an unjust per cent of this taxation, and their request in this matter should receive careful consideration and proper attention. J. T. DANIELS.

THE FUTURE OF THE FARMERS' CLUB MOVEMENT.

[A paper read by A. C. Bird at the annual meeting of the State Association, and published by vote of the Association.]

The wonderful development of the farmers' club movement in this country, and particularly in this State, during the past few years, makes the study of the principles underlying that development a most interesting one. The growth has now been of sufficient duration, the work has attained a sufficient definiteness, and the results are becoming sufficiently apparent to make infinitely proper a discussion of the line of development along which its future growth will probably follow.

It is not the purpose of this paper, however, to make any attempt toward suggesting the specific lines of work which may properly be adopted by this Association, nor to give expression in detail to the hopes of its founders and active promoters; but rather to call attention in a general way to the absolute need of a permanent and enduring organized effort among the farmers and their conservative and practical co-workers, in support of the principles underlying our organization; in support of honesty and integrity, economy and thrift, in the management of the public affairs of this State and nation.

It has been the source of much serious discussion ever since the foundation of this republic, that except in times of war, the great mass, even of the intelligent and thoughtful people of this country, have manifested a dangerous indifference to the conduct of public affairs. When the popular heart becomes fired with that national patriotism which a declaration of war kindles, every mind becomes keenly alive to the duty of the hour; and the ease with which all classes of people grasp the details of their national life demonstrates beyond a doubt that such is their natural function; and that to bring about that desirable condition of affairs where all the people are all the time actively and acutely interested in the affairs of the body politic, lacks only a just comprehension on the part of the people themselves, of their true duty in the matter.

There is no reason except indifference, why every farmer, why every laboring man and every intelligent citizen, throughout this great commonwealth, should not be reasonably familiar with the conduct of the government of which we too often forget we are a responsible part. We may use all the carefulness known to our present intelligence in our choice of public officials, and exercise all the independence of judgment in their selection which the most ardent reformer can suggest, and yet this carelessness and indifference on our part as to the acts of those officials in the discharge of their public duties will never fail to produce those evils of which we now justly and reasonably complain. Scarcely a corrupt practice can be mentioned in the conduct of public affairs to-day, the origin of which cannot be traced directly or indirectly to the indifference of a responsible people, of whom you and I are component parts. Scarcely an evil which has become so deeply rooted or so safely entrenched, that a proper awakening of the body politic from this sluggish indifference will not force it down.

It is upon this theory that the Farmers' Club organization has worked out a successful beginning. Not un mindful for a moment that the primary object of club formation is to secure an interchange of ideas and a community of interests in matters purely agricultural, and in no way infringing on the supremacy of that phase of our work, the Farmers' Clubs, through the medium of the State Association, have organized themselves into a great school of public inquiry and investigation, in which every member and every club sympathizer has become a student, and the government of which he is a part is the subject of investigation.

To say that the work thus far has been successful is putting it mildly in the extreme. To say that the people are becoming awakened to their plain and manifest duty along these lines as they have never been before, is conservatively stating a most apparent fact. To say that the management of every public institution in Michigan is scrutinizing expenditures with a carefulness more akin to pure, business-like methods than has been known in a quarter of a century, is to state what few well informed men will dispute. But to claim that we have reached or shall soon reach the point where we may safely rest on our oars, where our work shall have been done, where our mission shall have been fulfilled, would exhibit an incomprehensible misconception, not only of what has been accomplished and of what is yet to be performed, but of the very nature of the work itself.

We have but made a beginning. A grand one it is true, yet it all bears the stamp of preparation. The few pages of history which are ours are almost brilliant in their record of successes, but they must all be classed in the introductory chapter. The real, and really great record, is yet to be made. Nor will it be the work of days or months, and I had almost said of years, to complete that which has been but just begun. For as long as popular government shall endure, so long shall there be the need of that eternal vigilance which is the price of liberty, and which is only an ancient and time-honored expression of the very work this organization is inspiring in the hearts of the people to-day. The evils which have crept into our national life, into our commonwealth, and into almost every department of our local government, are but the natural results of a tendency for which we

alone are to blame, to accept unquestioned the statements of our public servants, and to view with uncritical eye their indifferent work. Legislature after legislature has passed in and out of these halls almost un mindful of us and we of them. Boards of supervisors throughout this state have appropriated hundreds of thousands of dollars annually, and their actions, good, bad or indifferent, have been as far removed from the thoughts of ninety per cent, and I am inclined to put it at ninety-nine per cent, of their constituents, as were the doings of the King of Abyssinia. In all public matters, great and small, near to the people interested, and far removed from them, public officials have conducted the affairs of their offices unquestioning and unquestioned. Shall we wonder that evils have crept in? Shall we wonder that dishonest men seek for plunder where such indifference exists? Shall we wonder that even honest men fall in public life, when by our actions we reward both good and evil alike, and ask for an accounting from no one? Rather may we be dumfounded that an unlooted treasury remains. The present condition of affairs in state, county, and township, taking into account this supreme indifference of the people toward the conduct of their public servants, is by far the strongest proof that can be summoned of the natural integrity of this republic. It may well be doubted if there be another government on the face of this earth where the actual governing power could so trustfully delegate its authority, and so utterly remove all checks on dishonest practices, and exist for a decade.

It is the correction of this greatest of evils in our national life that the Farmers' Club movement has undertaken, and it will be the work of years to accomplish it. Shall it be said that the plan is too ambitious? That we have attempted the practically impossible? Not so; and to those who have watched the work of the past few months it does not appear so. Throughout this great State the work is already well under way, and people who were recently unquestioning and uninformed are rapidly assuming the responsibilities which self-government imposes upon every loyal citizen. At almost every farmers' club meeting, and at the meetings of many kindred organizations, the discussion of the principles that underlie the very foundation of our institutions, as well as the practical working of those institutions, is regularly taken up. And the study and investigation which is there conducted is rapidly losing the sense of irresponsibility, and that apparently natural tendency of the human mind to condemn everything not understood, which have so fettered all real progress in the past. I almost universally find the participants in these discussions and investigations as free to praise the good as to condemn the bad, and as free to admit that they themselves are as largely to blame for the present unsatisfactory condition of affairs as they are to accuse others of negligence or dishonesty. And the feeling seems to be general the farther the investigations are carried, that the first great necessity is a well-informed public mind. The greatest work the farmers' clubs have undertaken, and the greatest work to which any organization can give its attention, is thus along educational lines, and whatever may be the accomplishments of its future, this work alone will stand pre-eminent in genuine worth.

But another unfortunate condition, a natural outgrowth of the one just mentioned, which penetrates to the very core of our government from township to national affairs, is the unwillingness of those placed in authority in public matters to trust the people who thus honor them, and who are primarily interested. It is a most astounding fact that in this country, where none are so bold as to openly question the right or the wisdom of popular sovereignty, or the general integrity of the popular mind, that those placed in control of our great public institutions and governmental departments deem it necessary to keep from the public eye the details of the work they supervise. No matter whether it be in the county offices, in the State departments, in the boards of control of our great public institutions, in the maintenance of penal, reformatory, and charitable institutions, or even in the management of the great educational institutions and educational interests of the State, this distrust of the people everywhere seems to prevail. It has become impossible for the majority of the people to determine any of the pertinent facts connected with the business management of these institutions and departments. General reports are published by the carload, but when the people desire specific information regarding public expenditures in any department or the income and detailed expense accounts of their public officials and employees, in most instances it can only be obtained by a tedious and expensive investigation, which is hampered on every side by those whose plain and manifest duty it is to encourage this honest spirit of interest and inquiry on the part of the people. It is a disgrace to our system of government that the State tax statistician of this State is compelled to confess himself powerless to determine many of these facts of public interest, because of the arbitrary refusal of those in authority to furnish them; and a no less one that the editor of the Associated Farmers' Clubs department in the MICHIGAN FARMER should receive scores of letters of congratulation and thanks from all over the State, for determining, after the expenditure of much time and some money, the simple fact of the average incomes accruing to a few of the county officers—simply for determining facts which ought to be freely and fully made public to the taxpayers of the State by the officials themselves.

(Concluded next week.)

REPORTS FROM LOCAL CLUBS.

WALES FARMERS' CLUB.

The April meeting of the Wales Farmers' Club was held April 3d at the home of Henry Maurer.

The subject for discussion at the ladies' meeting was, "The Mother's Greatest Need." The general belief was that the qualities of most value to a mother are good sound judgment and discretion; that these will serve her best in her endeavor to lead her children in ways of right, guiding them in a way to develop them into useful, dutiful men and women.

The afternoon meeting was called to order by Vice-President McKenzie.

A report was made by the committee appointed to view ex-County Clerk Mason's farm. His large farm situated in the most elevated portion of St. Clair County, shows evidence of thrift and good management everywhere. He is a model farmer.

The topic for discussion next in order was, "Ought Mortgages to be Taxed." The general impression was that under the present law the taxing of mortgages is simply double taxation; and that unless some means can be devised to prevent this, it would be better not to have the mortgages taxed at all. Still it was thought that they should be taxed the same as other property.

A very interesting literary program was listened to during the session.

The next meeting will be held at the home of Albert Hand, May 7th.
MRS. ALBERT HAND, Cor. Sec.

LIBERTY FARMERS' CLUB.

Promptly at eleven o'clock, on Saturday the 2d inst., President Kennedy called the Liberty Farmers' Club to order, the place of meeting being "Slightly Home Farm," the home of Mr. and Mrs. H. Harper. After the opening exercises the secretary read a letter from a candidate for a State office asking the members to vote for him; also a proclamation from Gov. Pingree asking the members to vote for an increase of the Attorney-General's salary.

The propriety of electioneering in the club for any candidate was questioned, but it was thought proper that the proposed amendment be considered.

Nearly the entire afternoon was occupied with the "Review of the Board of Supervisors," much the same course being pursued as at the March meeting.

Mr. Edwards stated that the law fixed the number of days the supervisors should be allowed for making up the tax roll and the price per day, the number of days allowed for each of the sessions of the board, and the number of sessions allowed during the year. Also that the law fixes as a penalty for exceeding this number of days a fine of not less than one hundred dollars per day and not more than five hundred.

A motion prevailed that the topic, "A Whole Humanity," be again carried over to the next meeting. There will be a roll call in connection with the discussion and each member is expected to answer with something upon the subject.

Adjourned to meet with Mr. Alonzo and Miss Annie Vicary on the first Saturday in May.
MRS. J. D. CRISPELL, Reporter.

PARMA FARMERS' CLUB.

Brightly shone the sun and the air was balmy cool on April 2d, as people to the number of more than one hundred assembled at the regular meeting of the club at the pleasant home of President B. F. Peckham. Disappointment spread over the many faces when the president read a communication from A. C. Bird stating his regrets at not being able to meet with the club as intended, he having been unexpectedly called to Lansing on committee work. Mr. Bird promises that he will swoop down upon us unannounced sometime in the future. All right Mr. Bird, you will always find the latchstring out and the beacon light burning.

The forenoon session was taken up very much in the usual way by the routine exercises. The secretary having sent in her resignation, E. W. Campbell was elected to fill the vacancy.

After an hour spent at lunch and sociality the afternoon program opened with singing by the club, followed by a paper by Mrs. Showman "Chatting of my travels."

The most important part of the program was the talk on "The work of the supervisors," which for the want of time was tabled from last meeting.

Supervisor Hoag, of Parma, who has been on the board for sixteen years, and Supervisor Cochran, of Sandstone, a yearling at the business, occupied the floor for eighty minutes, giving in a clear and comprehensive way the inner workings of the board, and replying to all questions in a way that showed plainly their thorough knowledge of the work.

Mr. Hoag stated that Jackson city paid forty-two per cent of the State and County tax. Also he considered the city property valued too low. He explained that it was necessary to call an extra session of the board soon after election to appoint a chairman to draw orders, etc. Also that each line of business was attended to by a committee for that one purpose. Both Mr. Hoag and Mr. Cochran thought that if a township was assessed too low the committee would raise it to about the right valuation, but if assessed too high it was not always put back where it belonged, consequently they considered it safest not so overestimate property values.

Numerous lines of business were attended to which were of but local interest. An interesting program is prepared for the next meeting, appointed at Mr. and Mrs. Fred Dean's, on Friday, May 7th.

BRAD. L. HUBERT, Club Reporter.

GRASS LAKE FARMERS' CLUB.

The regular meeting of this club was held on March 10th, at the home of Mr. and Mrs. Henry Murry. President Raymond, in his address, spoke words of encourage-

ment, and gave some advice as to a future policy for farmers. The remarks were in substance as follows: Our club, on this twelfth annual election, is in good running order and promises unequalled success for the future. The farmer has been through a time of discouragement and discontent. It is folly to look back. We are proud of the progress in inventions. If the farmer keeps up with the procession he must use all of these advantages. We should obtain all of the profit possible from our labor by means of plenty of fertilizers, thorough cultivation and good stock. The drouth has taught us many valuable lessons. We must stay right by staple productions.

The club then proceeded to ballot for officers for the ensuing year, with the following result: President, M. L. Raymond; vice-president, Franklin Dwell; treasurer, Marcus Preston; recording secretary, Mrs. David Rowe; corresponding secretary, Mrs. Frank Stone; assistant corresponding secretary, Clay Taylor.

The Kimmis Salary Bill was then taken up. Wm. Smith stated the object of the bill, and as it had been thoroughly discussed heretofore, it was not taken up at length, but a resolution was adopted in favor of the measure, and Wm. Smith was appointed to draft such resolution, also resolutions in favor of the oleomargarine bill, and with the signature of the president and secretary, send the same to our representatives in the legislature.

Mr. Brewer asked that the voters come to the township primaries to counteract the tendency of rings. This sentiment was heartily endorsed.

The question, "Shall the county be bonded for \$80,000 for the purpose of building a new court house?" was decided in the negative.

The next question, "Shall the Jackson county fair grounds be sold?" was decided in the affirmative. The so-called Agricultural Society, (about a dozen life members), now let the grounds and pocket the money.

The subject, "The township unit school system," was then taken up. The sentiment was entirely against it.

The club then adjourned to meet April 14, for an all day session at the Grass Lake town hall.

FULTON CENTER FARMERS' CLUB.

This club met at the home of Mr. and Mrs. Joseph Foster on April 1st, with a goodly number present. After the usual opening exercises the topic was taken up: "Resolved, That overproduction is the cause of the present hard times." A good discussion followed, which was led by N. Walker and followed by several others. It would seem from the discussion that a great many of our farmers are not familiar with our banking system, a subject which is of much interest to the farming community at the present time.

The usual literary exercises were carried out and much enjoyed by all. Business was resumed after the social and dinner hour.

The query, "Will it pay the farmers of Michigan to raise sugar beets for sugar?" was thoroughly discussed. The general opinion was that it would not pay.

The next query was, "Why is the money loaner better than the farmer?" This was a most leading question, and brought many members to their feet. It was decided that the money loaner was not any better than the farmer, but that they thought themselves better or they would not ask so many favors or do so much lobbying with the legislatures.

The Association question was then taken up: "Ought mortgages to be taxed?" This was well discussed, and it was decided that there should be a law enacted whereby all mortgages should be assessed to the mortgagee, and compel him to pay the tax thereon.

The following resolution was then passed: Resolved, That it is the sentiment of this club that we are opposed to the repeal of the mortgage tax law.

The meeting then closed to meet the first Thursday in May, at one o'clock, at the home of Mr. and Mrs. Wm. Foster.

O. N. CHAFFIN, Sec'y.

HOLLY CENTER CLUB.

On Thursday, the 8th inst, the April meeting of this club was held at the residence of Mr. and Mrs. T. P. Green.

During the literary exercises, Mr. Mitchell gave a very interesting talk on the origin, nature and requirements of the soil; its original formation by the action of glaciers, the effects of the elements, frost, and surface waters on the soil, and the necessity of good drainage to keep the soil from souring. He also spoke of the present exhaustive methods of farming which are fast destroying the fertility of our farms.

Much interest was shown in the discussion of the question for the day, which was, "How can county and township expenses be reduced?"

The question was opened by Mr. Austin and David Mitchell, who thought that the voters themselves were to blame for all unnecessary expenses; that they should be more watchful and take more interest in politics, also demand of their public officers a strict account of the manner in which the public money is expended.

Mr. Frank Downey did not think that our county and township expenses were very much too high. The proper way to reduce them would be to approach the candidates for office before election and vote only for those who would pledge themselves to the strictest economy in the discharge of public duty.

Mr. Divine showed by statistics from Col. DeLand's tax report that there had been a slight falling off in the average of township expenses during the past two years, showing that the cry for retrenchment from the taxpayers has already had some effect, but that there is still room for reduction. Also that township and county

officers are often paid more than is necessary, charging full days for half days' work. Mr. Divine can remember when the county treasurer received only eighteen dollars per year for his services. Each year it is becoming more necessary to study economy in public as well as in private affairs.

Mr. Green thought that public officers should be as careful, conscientious and economical in the conduct of public affairs as they were in conducting their own private business; that they should be just as anxious to economize for the public as they were to reduce their own private expenses.

Mr. E. E. Wheeler thought it was only nature that public officers should make all they could out of their offices. He gave a somewhat amusing turn to the discussion by referring to the recent bill before the House to regulate the size of ladies' hats and dress sleeves.

Mrs. Gaylord said in reply that large hats and dress sleeves were no more annoying to the gentlemen in public gatherings than the frequent odor of tobacco was to the ladies.

The next club meeting will be held at the home of Mr. John Shields, Thursday afternoon, May 6th. The question will be, "In what way can we practice greater economy on the farm?"

REPORTER.

EAST PUTNAM AND HAMBURG FARMERS' CLUB.

This club met at the home of Mr. and Mrs. E. W. Kennedy, on March 27th, with a large attendance. The forenoon session was given up to business, music and witty sayings. After dinner the reports of the committees were received and the question box opened. The latter brought out some interesting ideas in regard to the kind of farm fence to build, the making of butter, the raising of potatoes and the sowing of cloverseed.

T. Sheehan fits the ground in late summer and sows a bushel to eight acres.

G. W. Brown sowed a piece last August. He fitted the ground and rolled it down, then sowed a bushel to four acres and harrowed with a light harrow. He has a good stand of clover now.

The question for discussion was in regard to the Attorney General's salary. The most of the members thought that if he had the privilege of hiring deputies at \$800, he would at \$3,500. Still, they believed the present salary too low, but did not believe in jumping to \$3,500. They would favor a raise of \$1,500 or \$2,000 a year, thinking that would be high enough these hard times.

The president appointed a committee to draft resolutions and the club adopted the following:

Resolved, That this club is unanimously in favor of the passage of House Bill No. 198, known as the Kimmis County Salaries Bill.

Resolved, That we are opposed to the changing of the present road system.

Resolved, That we are decidedly opposed to the repeal of the Mortgage Tax Law.

Resolved, That we are unanimously in favor of the passage of the Anti-Trust Bill.

After a number had joined the club, the question, "Is our county farm conducted in an economical and business-like manner?" was selected for the next meeting, which comes on April 24th, at the home of Mr. and Mrs. George Culey.

J. T. CHAMBERS, Reporter.

RAISINVILLE AND IDA CLUB.

On March 26th, the club met at the residence of Mr. Justus Sartoris. After dinner the meeting was called to order by Pres. J. N. Morris.

The club question, "What state and national laws are unjust to farming interests?" was introduced by a lengthy article by Mr. Nelson Davis and was discussed by different members of the club; but they did not agree on the tariff bill, and for lack of time it was left undecided.

An interesting essay on "The effect of flower culture on farm life," was read by Mrs. John Nichols. She thought it well to have flowers all around the house so they could be seen from every door and window.

After some discussion the club adjourned to meet April 30th, at Mr. and Mrs. James Thorne's. Question for discussion, "Has the policy of the government in opening up its lands for settlement not been detrimental?"

MRS. MERTIE KRING, COR. SEC'Y.

ARGONAUT FARMERS' CLUB.

The Argonaut Farmers' Club discussed the Association question for April much upon the plan outlined in the MICHIGAN FARMER, with the result of bringing about a clearer and more comprehensive view of the subject through these sub-divisions.

The club did not take any definite expression concerning the subject "Ought mortgages to be taxed?" but the discussion awakened an interest brought about with the thought that our legislators have it in their power to dispose of this question, which, in the form of a bill, is before our representatives for action.

All felt that the mortgagor pays all the tax he is able to pay, without imposing a heavier tax on real estate.

COR. SEC'Y.

A Remarkable Contest.

A most remarkable contest by the American Nation Co., Waterville, Maine, is announced. The sum of \$500 will be paid to the person who makes the largest list of words out of the one big word Encyclopedia. There are also hundreds of other grand prizes for all who send lists. It is certainly one of the greatest offers in the history of the publishing business; we know the American Nation Co. are a solid concern, thoroughly honorable, and will do exactly as they agree. Read their offer on page 307 in this issue.

HOME SEEKERS AND ONE WAY SETTLERS' tickets via Wabash route. On sale first and third Tuesdays in each month to and including May 15th, '97. To points in Kentucky, Tennessee, Alabama, Louisiana; also Kansas, Nebraska, Arkansas, Texas, Western Colorado and the Northwest. For particulars address Wabash City Office, No 9 Fort St. West, Detroit.

Veterinary Department.

CONDUCTED BY DR. W. C. FAIR.

Advice through this department is free to our subscribers. Each communication should state history and symptoms of the case fully; also name and address of the writer. The initials will only be given. When an answer is requested by mail it becomes private practice, and a fee of one dollar must accompany the letter.

WORMS.—Pigs' eyes become swollen and after a little while they die. Examined one, and it had black teeth on either side of upper jaw. W. C. T., Romeo, Mich.—Give powdered areca nut in a little castor oil once a day.

HOW TO FEED HORSES.—Is it better to give horses their grain before or after they eat their hay?—J. F., Goodrich, Mich.—It makes no difference whether you feed grain before or after hay. It is proper to feed animals at regular intervals.

WORMS—INDIGESTION.—My little pigs do not eat as they ought. Gave them medicine for worms, but do not think they are troubled with them; their tails are straight. A. R., Belleville, Ill.—Give ground gentian, powdered areca nut and powdered wood charcoal in their feed three times a day.

WEAK LOINS—TORPIDITY OF KIDNEYS.—My mare breaks out in blotches. Her urine is thick and yellow and she is weak across loins. W. B., Wales, Mich.—Your mare's kidneys are sluggish. Give one dram fluid extract of buchu and two drams nitrate potash three times a day in feed.

SPRAINED FETLOCK JOINT.—A mare got lame in front foot about six weeks ago. Blacksmith said ankle was sprained. It is swelled quite large and she is very lame. J. S., East Tawas, Mich.—Blister joint with caustic balsam once a week. Give her rest.

BRONCHOCELE.—One of my lambs was born with a swelled neck. It lives and suckles but is dumbish. Another which came dead also had a swelled neck. My sheep are young and in fine condition. J. C., Hubbardston, Mich.—Your lambs die of bronchocele. Apply one ounce iodide of potash and one quart of water to swollen glands twice a day.

HIP LAMENESS.—A seven-year-old driving horse is lame in left hind leg; limps only when walking, but swings to one side when trotting. Have used wormwood and vinegar but with no noticeable result. Can discover no fever in any part of leg. L. C. B., Bennington, Mich.—Horse is lame in hip. Apply equal parts spirits camphor, alcohol and extract witch-hazel to hip three times a day.

CHOKING—ROARER.—Would like to know what to do for a sheep when choked on potatoes or on anything else. I also have a ewe in which the process of breathing produces a rattling sound in throat. J. W. P., Sheridan, Mich.—Give a small quantity of oil and belladonna. If that does not relieve them, pass a probang. Your other ewe is a roarer. Apply iodine to throat once a day.

HARD TO BRIDLE.—My seven-year-old Norman mare throws herself on her haunches whenever I attempt to bridle her. Is perfectly kind and docile in every other way. She was never bitten with frosty bits, nor has she had sore mouth. A. D. V., Holton, Mich.—Be kind to her; tie her head down with a strong rope or neck strap; give her sugar and apply sugar to bridle bit and she will very soon open her mouth to take the bit.

HIDEBOUND—INDIGESTION.—A seven-year-old horse is hidebound and his hair rough. Eats well but is quite poor. Have been feeding good bright cornstalks, corn,

and carrots all winter, but am feeding clover hay, ground oats and corn at present. Have also given him tamarack tea in feed. F. J. N., Cass City, Mich.—He does not get the good of what feed he eats. Have his teeth put in proper order. Give half an ounce ground gentian, half an ounce ginger and two drams ground nuxvomica in each feed.

GRUB IN HEAD.—My sheep throw their heads up and then back, turning them from one side to the other; sneeze and rub their heads against anything they come to; also scratch their heads with their hind feet until they have rubbed the wool off. Otherwise they seem hearty. C. H. A., Marlette, Mich.—Your sheep have grub in head. Call a veterinary or some practical sheep man and have him trephine them and they will soon get well.

STRANGLES.—A three-year-old colt is troubled with sore on under jaw where the two bones meet. She was taken with a chill and would not eat for about 10 days. Then it broke. I do not think it is distemper as she does not cough or run at the nose. Since sore broke she has commenced to eat a little but is not doing well. Have used carbolic acid and warm water on sore. R. B., Salem, Mich.—Your colt had strangles. Apply iodoform to sore once a day. Give her ten grains quinine four times a day.

PARALYSIS.—Have had several sick lambs. It begins with stiffness, followed by an entire loss of use of limbs. Appetite remains good. One recovered the use of three legs so he could stand alone, but died soon after. Lambs have plenty of exercise. Ewes are fed a heavy ration of corn and oats, with clover hay and cornstalks. I lost some lambs last year in same manner. F. W. G., Wolf Creek, Mich.—You overfed your sheep. Give them plenty of salt and epsom salts to keep their bowels open.

ABNORMAL GROWTHS ON UDDER.—My Jersey heifer, two years old, came in last September and did well. She now has several bunches on udder. One is larger around than a teat and about half an inch long. Looks as if it might be squeezed out, but I never meddle with it. The others are smaller, not very hard and white or yellowish. The large one showed some before she came fresh. T. H., Byron, Mich.—Apply one part chromic acid in four parts water once a day to ends of growths.

WORMS—THUMPS.—I have lost several hogs from some disease. They cough, seem to get stiff, refuse to eat and finally die. Also have some pigs about a week old that are sick with what some call thumps. They breathe very hard and seem to have fever. S. T. H., Lalingsburg, Mich.—Give one dram powdered areca nut in feed twice a day. Your young pigs are too young to be medicated. Good care in line of feed and shelter will do them more good than medicine.

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Big Foot Prairie, Ill., Aug. 17, 1894.
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Please send me one bottle Gombault's Caustic Balsam, by American express, to Harvard, McHenry Co., Illinois. I have used one bottle and think it is the most reliable and safest blister that I have ever used.

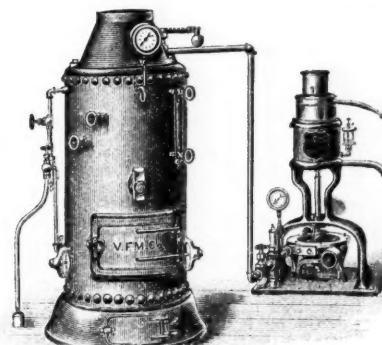
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S. P. CONKLING, 20 East Atwater St., Detroit, Mich.

Miscellaneous.

A MORNING CALL.

"What's the matter, Violet?"
"I'm bothered to death!"
"Why?"

"With these horrid bills—it's quarter day or something—I believe every year has sixteen quarter-days!" and she brought down her white hand angrily upon a packet of freshly opened bills lying before her on her writing table. A pretty looking woman sitting in a pretty room, perfectly dressed, with fair, well arranged hair, and delicate, white hands. Opposite to her was seated a man—youthful, and good-looking, stretched indolently in an easy chair.

"Tell George about them," he said, lazily. George's wife looked troubled.
"He makes such a fuss now, and scolds, and is so disagreeable that I hate asking him for money."

"Borrow of me."

"You dear, kind Jack, certainly not! One beggar can't rob another! Besides, you've no idea of the awful sum I want. Oh, dear, I am so miserable!" And big tears stood in the lovely eyes that had given her the name of Violet.

"Don't worry," he said, turning away so as not to see her tears, "tut up the amount you owe, and tell me what it comes to."

"I've done that already. I've been at it all the morning—it's a frightful amount—it comes to two thousand pounds!"

Jack gave a low whistle.

"Great Scott! I've nothing like that. How much does George allow you?"

"A thousand a year."

"And can't you manage on that? Why, once we should have thought it a fortune!"

"Of course; but you see, I do spend a lot upon my clothes—no one can dress as I do upon much less. But that's not it; the fact is I have an awful drain upon me. Oh, Jack! I'll have to tell you, for I must confide in somebody, and you are such an old friend. I wouldn't if you were rich, because then you would want to help me; but perhaps you can help me with advice."

"Tell me," he said, quietly; "may I have a cigarette?—and where's George, by-the-way?"

"He's gone to Tattersall's, and then to his club, and he won't be home to lunch; that's why I asked you to come to-day, for I've been longing to tell you of my worries ever since you came from India."

"All right, drive on."

"Well, you remember, don't you, the dear old days at home, when you were so much with us?"

"I should rather think I did! That was a jolly little house your poor mother had on the river! We did have good times, didn't we?"

"Yes; but I'm afraid Molly and I both got the name of being rather fast."

"Beastly scandal!"

"Yes, but I'm afraid we gave cause for it. Look how you and I used to go for moonlight excursions on the river, to come back to find Molly and Captain Dacres walking in the wood!"

"There was always that horrible old woman, Mme. Devonne, about."

"Hateful creature!" Violet exclaimed angrily.

"And, after all, what harm did we do? Why, I never even kissed you except once!" and he sighed.

"Yes—only once," and she laughed and blushed; "but I must go on with my story. You remember the first time when Captain Dacres brought George to see us?"

"Perfectly," he said, dryly.

"And how mamma called me up to her room, and told me, with tears in her eyes, that she felt sure that she had not long to live—don't look at me, Jack, for I can't help crying when I talk of mamma—and how poor Molly and I would be when she died, because some pension stopped at her death; and then she said that she heard that George was a good man, and very rich, and that her one prayer was that he might take a liking to one us."

"And he plainly showed the very first visit that he had taken a liking to you, Vi?"

"Yes, I think he did. Well, to go on—I'm awfully ashamed of what I have to tell you!" and a deep flush spread itself up to the roots of Violet's hair, that lovely dark gold hair that was part of her charm.

"All right, don't mind me."

"You know," she went on, nervously, "just about that time, in spite of our brotherly and sisterly protestations, I had begun to be a little, just a very little fond of you—at least (with an awkward laugh) 'I fancied I was!'"

"By Jove!" and he turned quickly in his chair and looked with a strange expression in his eyes at the lovely woman before him.

"I know it was very silly and very horrid of me, because, of course, I knew all the time that you only thought of me as a nice sort of sister."

Jack gave a harsh laugh, and rose to light another cigarette.

"Well, when George proposed to me, I was dazzled by the idea of being his wife, and living in a big house, and having lots of diamonds and carriages and things, and, above all, dear mamma was so relieved and happy, and so I said, 'Yes.'"

"You did quite right," he said, quietly.

"But, you see, Jack, when I accepted George I did not love him. I found him cold and shy, and I felt half afraid of him, so just before the wedding-day I did a dreadful thing. I—I wrote a letter to you,

and asked you to run away with me, and I told you I was much fonder of you than I was of George, and—in short I wrote a very silly letter full of nonsense I did not half mean, because just about then I had begun to feel that I might learn to love George in time."

Jack's face was ashen—his mouth was firmly set, and his hands clenched.
"Mme. Devonne came into my room as I was writing, and afraid lest the letter should be seen, I thrust it into my blotting-book. Then Molly called up that George was waiting for me downstairs. I ran down, and then he gave me that lovely pearl necklace, and he seemed to lose his shy manner and told me how he loved me, and he was so nice, and—and somehow what he said gave a new odd sort of feeling toward him, and I knew for the first time since our engagement that—well—that I cared for him."

Jack walked to the fireplace and knocked off his cigarette ash, and Violet went on:

"I forgot the letter till late, and then I thought what an idiot I had nearly made of myself, and knew that it was only a nervous sort of sentimentality that had prompted me to write, and I grew cold with fright lest someone should read it. I hunted through the blotting-book to bury it, and could not find it, so I thrust the book into a drawer and locked it—everything was in such a hurry at the last, you know. Well, then we married, and went to Paris, and had a lovely time. He was wonderfully good to me, and I learned to love him so dearly that I could not imagine having ever thought I cared for anyone else."

Jack gave a curious sort of cough, half like a choke, and his hand went up to his collar, and he drew it aside from his neck.
"And then we came home here, and George had been so thoughtful and kind in all his arrangements for me, that I was more than ever touched by his goodness, and I grew so fond of him that I was never happy when he was away from me. But now everything is changed. He does not seem to care for me any more," and a sob choked her utterance. "He never goes anywhere with me—he hardly ever speaks, and when I hinted that I had an awful lot of bills and didn't know how I should pay them, he said, in a stern voice, that I had an ample allowance, and must make it do!"

"But, surely, Vi," Jack said, in a husky voice, "a thousand a year is more than enough for you to dress upon?"
"Of course it is."
"Then why that pile of bills?"
"Now we come to the point. That old wretch Mme. Devonne had found my letter, and one morning when George was out she called and asked to see me. You know I never liked her, but I was so happy that I felt in charity with everybody. She began by being very pleasant, admiring everything, and saying how well I looked, and all that sort of flattery, and then she produced that letter from her pocket. 'Oh, I'm so glad you have brought it to me!' I exclaimed, and held out my hand for it; 'but why did you take it?' I asked."

"I am very poor, Violet," she answered, "and I am getting old—I work no more—I will repose myself."

"I said something civil, and asked again for my letter. Then she showed her hand, and told me that unless I paid her well she should at once send that letter to my husband."

Jack started to his feet with a furious exclamation.
"In vain I pleaded, then I grew angry, but it was all of no use. I knew to read such a letter would break George's heart—he would never believe in me again, for it would put me in such a wicked—though, thank God, such a false—light that I should lose his love forever. At last I gave in, and promised her anything if she would only give me back the letter. This she refused to do, but said as long as I paid her well she would not send it to George. I have given her hundreds, and at last I had to write and tell her that I had no more to give."

"Could you not have told George the whole truth?"

"I often longed to tell him, but it is all so difficult to explain, and if he ever saw the letter he would find me judged by my own handwriting."

"Poor little Vi! I'm glad you told me. Now I must be off."

"Before luncheon! Oh, Jack, and I thought you would try to help me!"

"I am going straight to Mme. Devonne, and if I kill her she shall give me up that letter."

"Oh, Jack! Can you really do this? Oh, how thankful I shall be!"

"Give me the woman's address."

Violet eagerly wrote it down with trembling fingers, and then grasped his hands in hers. "You have always been so good to me, Jack, I wish George liked you—somehow I fancy he doesn't, he will when he knows you better, but now—"

"Now I think he's a fool to be rough on the sweetest wife a man ever had! I say, Vi, did you ever get a letter from me a little before your—your marriage? You never answered it."

"No, I'm quite certain I didn't. Was it anything of importance?"

"Oh, no, it didn't matter. Well, I must be off."

"What's that? It sounded like George's step!" Violet said suddenly.

Jack walked to the door and opened it.

"No one is there—a footman gone to the post most likely. I heard the front door bang."

"Do just come into the dining-room and have a little something to eat before you go," Violet entreated.

"I shouldn't mind a whiskey and soda, but I couldn't eat anything till I've tackled that fiend of a woman."

In a few minutes Jack was driving rapidly across London in the direction of

Notting Hill. "I'm glad she never got that mad love letter of mine," he said to himself with a sigh, "I suppose that vile Frenchwoman got hold of it. Well, I shall go back to India, and stay there till I feel cured of my folly."

Lord George Maitland at the same time was driving, far ahead of Jack, in the same direction. Arrived at a certain door in a small street in Notting Hill, he asked for Mme. Devonne, heard she was in, and was admitted. "Let no one else in while I am here," he said to the servant, slipping a sovereign into her hand.

Mme. Devonne was seated by the fire, knitting, with the remains of a dainty little déjeuner-a-la-fourchette on a table at her side. "Ah! milor, it delights me to see you!" she said, rising and holding out her hand.

Lord George bowed. "Sit down, madame," he said, sternly, "I have but one thing to say—give me at once the two letters of which you sent me copies, one written by Lady George Maitland, and the other by Captain Staunton."

"Ah, milor, but I have them not."

"It is useless to lie. Give them to me at once or I will have you arrested on the charge of blackmailing, chantage you call it in your country."

"Ah! but Violet is clever! she has confessed to her good husband, she says she means nothing, and milor believes, and yet she loves the handsome Jack, and—"

"Silence!" thundered Lord George, "not another word! You have been blackmailing my wife for several months, you have made her life miserable, and mine a hell upon earth! You tried to make me believe that Captain Staunton was receiving from my wife the hundreds of pounds that you were compelling her to pay you as hush money! But all this villany has come to an end. Your letter of this morning telling me that Captain Staunton had an assignment with my wife during my absence has led to a very different issue to what you anticipated. According to your advice I went home unexpectedly, I stood unseen in the conservatory behind the boudoir, and lowered myself, through your slanderous tongue, to spy—yes, to spy upon my own wife! But I learned the truth, the whole truth. If you were a man, madame, I should horsewhip you; as it is, you will give up those two letters immediately. I advise you to give them up quietly."

Mme. Devonne rose without a word, and unlocking a drawer took out two letters, which she handed to Lord George. He glanced over them quickly, and then put them into his pocket. "I think you will leave London shortly?" he inquired, in a meaning tone, as he rose to his feet.

"Probably," she answered, coolly, "your vile climate gives me the migraine, the spleen. And, as you say in your ugly language, 'the game is up.' Ah!" she exclaimed, suddenly changing her tone, "I understand, you would frighten the poor Frenchwoman; but you dare not send her to prison, no! you remember milord's reputation—the scandal, and how the English hate a scandal! And you, milor, have you not been a fool? So easy to trick, so ready to believe; and so patient, yes, patient. Ah! how I hate the English virtue, patience. You believe all, but you wait!"

Lord George, without another word, left the room and went out into the street.

"That vile woman was right," he said to himself. "I have been a fool—a blackguard to have believed anything wrong against my darling little wife, and to have spled upon her. Brute that I was! but I will make it up to her—my Vi, my darling, never again shall you have an unhappy moment!" and he called a hansom and drove rapidly home.

The next morning Violet received a letter from Jack:

"Dear Vi: I went to Mme. Devonne's house yesterday and found her out. I went again in the evening, when the servant told me that she had left for Paris in a hurry. Shall I follow her up? Yours ever, John Staunton."

The answer arrived quickly:

"Come to luncheon at 2; George told me to ask you. He came home yesterday just like his old self, and was so sweet and nice to me. He asked me if I had any bills, and wrote a check for them, saying he liked doing it, and in the end I told him everything, and he was so loving and good. Your happy old friend, Violet."

"P. S.—I really believe George is quite fond of you, after all."—St. Paul's.

VARIETIES.

JUST as the physicians who had been in consultation seemed about to reach an agreement, the patient died.

"Fine subject," said one of the physicians, as they gathered about the bed.

"Splendid," echoed another. "Seems too bad to waste it by burial."

"Why should we?" asked the third. "All we have to do is to get up a violent dispute as to the real cause of death in order to get a chance to dissect it."

And so they worked the old scheme again. —Chicago Post.

PARDONABLE IGNORANCE.—A strange story is related of a jurymen who outwitted a judge, and that without lying. He ran into court in a desperate hurry and quite out of breath, and exclaimed:

"Oh, judge, if you can, pray excuse me! I don't know which will die first, my wife or my daughter."

"Dear me, that's sad," said the innocent judge. "Certainly you are excused."

The next day the jurymen was met by a friend, who in a sympathetic voice, asked:

"How's your wife?"

"She's all right, thank you."

"And your daughter?"

"She all right, too. Why do you ask?"

"Why, yesterday you said you did not know which would die first."
"Nor do I. That is the problem which time alone can solve."—Boston Budget.

POETRY WRITTEN BY THE MAJOR'S WIFE. —"Yes," said the Major, unfolding a batch of manuscript and handing it to the editor, "my wife has written poetry ever since she was thirteen years old."

"So long as that," sighed the editor. "Oh, it isn't very long," said the Major, merrily.

"She isn't more than thirty-five now; been that ever since I married her; doesn't age at all."

"I see," remarked the editor. "And she must be very fond of you?"

"Notes on me!" exclaimed the Major.

"Yes," observed the editor, "I gather as much from this poem of hers—'Lines to My Husband; Written by a Sad Soul at 3 O'clock in the Morning After I Had Waited for Him All Night Long.'"

"The devil!" exclaimed the Major. "Is that what she says?"

"Exactly," replied the editor. "And here's another—'Lines to My Husband Threatening to Throw My Mother's Trunk from the Third Story When He Was in a State of Intoxication.'"

"Here!" cried the Major, excitedly; "give me that durned trunk back again! I always told her she couldn't write poetry. There ain't a bit of poetry in the whole blamed family! Let's go out and take something."—Atlanta Constitution.

A. S. Murray and Wife

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The Dairy.

For the Michigan Farmer.

NOTES FROM A MICHIGAN DAIRY FARM.—No. 3.

Probably some other beginner in dairying is handicapped in the same way that I was by not having money with which to put up a new and modern stable for the cows.

It almost makes a young farmer discouraged to read about Morton's, Vanderbilt's, Havemeyer's and other rich men's stables. But we know that if we can keep our cows comfortable they will do just as well in one barn as another. And with building paper and lath it lies within the power of the least of us to do that.

As I had to have more room for my rapidly increasing herd I did put up an addition to the main barn, running it out 30 feet, and making it the same width as the one it joined. It was built the same height, too, as the other, so as to give room for feed overhead.

This addition gave stable room for 23 cows by extending it 20 feet into the old barn, tearing out the end of the latter, and utilizing the bay which adjoined the new part as a portion of the stable. There is a box stall in this end and the remaining space is divided into stalls three and one-half feet wide.

A central alley is between this and another row of stalls upon the opposite side of the barn. This opens by a sliding door upon the floor of the old barn where feed cutting is done. Opposite the box stall is a small granary (close to the barn floor) where the feed is mixed and prepared for use. The box stall is divided from the others on the same side only by a gate hinged to the outer wall so that it can be used to fasten cows in when desired. It has mangers like the rest, but no manure trench.

In the alley just opposite the door to the granary is a drive well, put down at slight expense, and which has proved a great convenience, although the cows do not ordinarily get their water from it. There are too many of them for the supply, so they go to the big tank in the yard which is supplied by a spring. This pump, however, brings the water at hand for mixing feed, watering calves in stalls, or any animal not turned out with the others.

The cows stand facing the central alley which is four feet wide. The mangers are two and one-half feet high next the alley and six inches on the other side. The cows are fastened with chains about their necks. These slip up and down at the other end upon iron rods fastened vertically to the side of the stall, or, more properly speaking, to the left hand front of the manger, there being one board on each side the space where the head is put through.

These boards are fastened at the bottom to the manger, extending to the floor, and at the top to 2x4 strips which extend from end to end of the stable over the cows' heads. The uprights are far enough apart to permit of the easy entrance of the head, and, when eating, the chains slip up and down on the iron rod at every motion. The chains give freedom of movement and are the best fastening I ever used. All the animals have been dehorned.

The floor is of elm plank and is just long enough to accommodate each animal as she stands upon it. Immediately behind the cows is the manure trench, and between that and the outer wall a walk paved with cinders, or soft coal refuse.

The trench is only wide enough to allow the entrance of a shovel with which to clean it out, and about eight inches deep. Most of the droppings fall into it, but sometimes a cow stands sideways and these fall on the edge of the platform. In this manner some cows get soiled when they lie down, but as a rule they are quite clean.

The partitions between cows extend well back, each cow having a stall and manger to herself. We first put in double stalls but tore them out as they were not satisfactory. There is no danger here of one cow getting more than her share, nor of getting injured by her mate stepping on her udder while she is lying down.

We use straw for bedding, and clean out stables twice a day while the cows are out to get water. The temperature in this stable very rarely reaches the freezing point.

To keep out the cold the walls are covered inside the matched siding with building paper. Windows are put in each side to give plenty of sunshine and light. The stable is eight feet to the overlays or floor above. Two doors, on rollers, are in each side and two in the end, one of these opening onto the feeding alley. This makes it easy for the cows to pass in and out without crowding.

I am aware of the fact that this is not by any means a fancy barn. I had not the money to expend for that purpose at the time, but it is a thoroughly comfortable stable and has been a source of considerable satisfaction in the years which have come and gone since it was built. As I had upon the place all the timber with which to build it, aside from the siding and shingles, the expense was not very great, and it has answered every purpose as well as a much finer one.

In this connection I wish to mention the subject of watering. Out in the barnyard we have a long trough, two feet deep and the same in width, where water from a spring flows for the cattle to drink.

Formerly this water would freeze in severe weather, in spite of precaution by

way of banking around it with manure from the horse stable and providing a tight cover for it. I knew that it was not a very good policy to let stock of any kind drink ice water, least of all milk cows, and one of the much-advertised tank heaters was purchased and put into the tank.

It works nicely. The water does not freeze except in the very coldest weather when sometimes a thin skin of ice forms at the extreme ends of the tank. The cows drink much more freely of the water than formerly and I am pleased to recommend this method of warming the water for stock to drink.

The cost for fuel (kerosene oil) is about four cents for 24 hours, or the price of two quarts of oil. Except in extremely cold weather it is only necessary to keep it burning through the night.

One thing is evident. The main part of milk being water, it stands us in hand to encourage our cows to drink all they will of it. My own experience has shown that they drink much more freely when the tank heater has taken the chill from it. I consider the investment a good one; one which has paid large dividends ever since it was made. My advice to anyone who is now giving his cows ice water to drink is: Buy a tank heater. You will not have cause to regret doing so.

Our next notes will treat of the care of cows in the stable, milking, time for feeding, etc. W. C. ROCKWOOD.
GENESEE CO.

For the Michigan Farmer.

TROUBLE WITH SHALLOW PANS.

We have not long been subscribers of your valuable paper, but we nevertheless appreciate its worth. I would like a little information through your dairy department, which page I always turn to first.

Am only a young buttermaker, but each winter have practiced heating the milk, although until reading Mrs. Willson's interesting article I did not know that it had the dignity of a "system" applied to it.

I formerly set the pans on the stove until the milk "crinkled," but now use the "steam bath." I did not know that the milk should be heated to 155 degrees until reading it in your paper, and since I have been heating it to that temperature there are white flecks of cream in my butter.

Have tried several experiments to avoid them, but to no purpose. Have been told that it was because the cream was too sour, but am sure such is not the case. Having calves to feed I skim the milk while sweet, and am careful not to let it get beyond the "velvety" stage before churning.

We have a cabinet creamery, but have never used it in winter, setting the milk in pans. Would the pan setting cause those annoying white specks?

Can someone who knows tell me if it would be entirely satisfactory to pack print butter in brine? I put my butter in half-pound packages and sell direct to the consumer, but in May I pack it, as we sell our cream during the summer months.

Would be glad to know if it would be as satisfactory to pack the half-pound prints in brine instead of packing the butter in jars. A. H. C.

EMMETT CO.

[Our advice is to use the creamery in the winter, as well as in the summer, and you will have little trouble along the line you speak of. It is not sour cream, but dried cream on top and around the inner edge of your pans that causes the white flecks.]

The submerged system, (Cooley), or ordinary deep setting, will serve you best at all times of the year. And if you continue to churn often you will have little trouble with flecks of dried cream or chunks of casein in your butter.

We should prefer to pack butter in jars for storage for any length of time. Pack solidly, lay parchment paper over the top, then a layer of salt.—Ed.]

For the Michigan Farmer.

COLD WATER IN FRESH MILK FOR CREAMING.

I am sorry to see in your issue of the 3d inst., page 265, a revival of the exploded idea that the addition of cold water to freshly drawn milk will cause it to cream rapidly and thoroughly. I am sorry because the advice is bad.

If a farmer has no ice or his supply runs out he is tempted to try this dilution method. He will get a good return in cream and will be apt to think that the scheme is a good one. Such was the case in 1890 when there was a dearth of ice, especially in New York. Many newspaper writers urged upon the farmers that when their ice gave out they try adding water, either hot or cold, to their milk in deep cans, and setting in the open air.

A few careful farmers at the experiment stations and elsewhere began to try this method, taking the precaution to weigh the butter and test the skim milk. They soon found that, in the vast majority of cases, the addition of water was a positive harm and brought damage rather than improvement in the creaming. I shall not worry your readers by quoting these experiments. Wherever in Vermont, New York, Wisconsin or Iowa the butter was carefully weighed it was found that, where cold water was added to the milk to make the cream rise, less butter was obtained than where it was omitted, the same amount of milk being taken in each case.

If you are running a dairy and the weather is either hot or cold, either run the milk through a separator, put in cans

surrounded by ice water, or set in shallow pans in a good clean pantry. Do not add cold water. Warm water is, in some respects, even worse, as it makes the cream sour very quickly, and the butter will be somewhat off flavor.

Do not be afraid of setting milk in submerged cans. If you are going to make butter, you should know enough to have your milk kept clean at the barn and free from bad odors. If the latter get in, remove by aerating. Those of us who have made butter, using a Cooley creamery for

these many years, know that there is no danger to be feared from the use of submerged cans.

MICH. EXP. STATION.

CLINTON D. SMITH.

[We knew that Andrew H. Wood was a little off in recommending the addition of cold water, as we believe he has been in some of his commercial fertilizer recommendations in eastern journals. The above criticism came to the editor just as he was writing the Station to reply to friend Ward.—Ed.]

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Always send money by draft, postoffice money order, registered letter, or by express. We will not be responsible for money sent in letters. Address all communications to, and make all drafts, checks and postoffice orders payable to the Lawrence Publishing Co.

ADVERTISING RATES:

Regular Ads. per line, each insertion.....25c.
Business notices, solid minion, charged count.....50c.
Regular Reading Notices, set in reading matter type, charged count.....65c.

Special location, 25 per cent extra.
No Ads. inserted for less than 75c per insertion.
Cuts and double column Ads. inserted at regular rates for space occupied.

Ads. displayed or loaded to suit advertisers, but are charged per line solid Agate measurement, or \$3.50 per inch each insertion.

No Lottery, Quack Doctor, or Swindling Advertisements inserted at any price.

SCALE OF DISCOUNTS.

The following discounts will be made on orders sent at one time for one advertiser, amounting to \$20 or over, to be completed within one year:

20 and under \$50.....	5 per cent.
50 " " 100.....	10 "
100 " " 200.....	15 "
200 " " 300.....	20 "
300 and over.....	25 "

No deviation from above rates.

DETROIT, SATURDAY, APRIL 17, 1897.

This paper is entered at the Detroit Postoffice as second class matter.

The death of Ex Senator Voorhees, of Indiana, the past week, removes another prominent political figure of the war period. At that time he was a representative in Congress, and was a strong member of the opposition to the then administration. Mr. Voorhees was a man of very decided views, and always had the moral courage to stand up for his beliefs no matter how much he was in the minority. He was an able advocate, and a dangerous man to attack in debate. He died at the advanced age of 76 years, forty of which were passed in the public service.

THE *Philadelphia Record* says: "Train loads of celery are arriving here from Florida. Heretofore the succulent plant has come exclusively from New York and Michigan. These recent consignments are the first that have come from the South. The celery is grown near Port Tampa, and its culture is something new. The shipments will be larger in the future, owing to the superiority of the product grown in the South over that in the North, large investments having been made at other points along the Gulf Coast by those interested in promoting its culture." We very much doubt the superiority of the southern product, but the fact that celery has been successfully grown in the far South will undoubtedly injure the market for the Michigan product, which has been shipped for years as far south as New Orleans.

Continuing his searching analysis of the Dingley bill in the New York *Herald*, ex-Postmaster-General Wilson pointed out in his most recent article of the series that the enactment of the measure into law will mean the immediate enhancement of the price of woolsens and the degrading of the quality of the goods. The American consumers will never quietly submit to such oppression and wrong, he declares, and to suppose that they will is to ignore all past experience and underrate their intelligence. —*Detroit Free Press*.

While the author of the Wilson bill is analyzing the wool and woolen schedule of the Dingley bill, let him give a moment's attention to a few figures: The Wilson free wool schedule went into operation September 1, 1894. Between that date and January 1, 1895, there were imported over 4,000,000 lbs. of shoddy and wool waste. For the full year ending January 1, 1896, there were imported 20,500,000 lbs. of shoddy, waste, rags and other adulterants, which were used to replace American wool. Each pound of these imports was equal to 2½ to 3 lbs. of unwashed wool. Manufacturers had to resort to the use of such adulterants to meet the prices of foreign woolen manufacturers, who used them to the fullest extent possible. Mr. Wilson would like to see the use of such stuff continued because he hates the American wool-grower. The Dingley bill practically shuts out all such imports.

THE WOOL SCHEDULE OF THE DINGLEY BILL.

As reported to the Senate by the Finance Committee, the terms of the wool schedule in the Dingley bill are substantially as follows:

Class one, that is to say, merino, mestiza, metz, or metis wools, or other wools of Merino blood, immediate or remote, Down clothing wool, and wools of like character with any of the preceding, including Bagdad wool, China lamb's wool, Castel Branco, Adrianople skin wool or butcher's wool, and such as have been heretofore usually imported into the United States from Buenos Ayres, New Zealand, Australia, Cape of Good Hope, Russia, Great Britain, Canada, Egypt, Morocco, and elsewhere, and all wools not hereinafter included in classes two and three.

Class two, that is to say, Leicester, Cotswold, Lincolnshire, Down combing wools, Canada long wools, or other like combing wools of English blood, and usually known by the terms herein used, and also hair of the camel, Angora goat, alpaca, and other like animal.

Class three, that is to say, Donkoi, native South American, Cordova, Valparaiso, native Smyrna, Russian camel's hair, and including wools of like character, such as have been heretofore usually imported into the United States from Turkey, Greece, Syria, and elsewhere, excepting improved wools hereinafter provided for.

The duty upon all wools and hair of the first class shall be 11 cents per pound, and upon all wools or hair of the second class 12 cents per pound.

On wools of the third class, and on camel's hair of the third class, the value whereof shall be 13 cents or less per pound, including charges, and on common goat hair, the duty shall be 32 per centum ad valorem.

On wools of the third class, and on camel's hair of the third class, the value whereof shall exceed 13 cents per pound, including charges, the duty shall be 50 per centum ad valorem.

Wools on the skin shall pay the same rate as other wools, the quantity and value to be ascertained under such rules as the Secretary of the Treasury may prescribe.

On noils, shoddy, top waste, slubbing waste, roving waste, ring waste, yarn waste, garnetted waste, and all other wastes composed wholly or in part of wool, the duty shall be 30 cents per pound.

On woolen rags, mungo, and flocks, the duty shall be 10 cents per pound.

The duty on wools of the first class which shall be imported washed shall be twice the amount of the duty to which they would be subjected if imported unwashed; and the duty on wools of the first and second classes which shall be imported scoured shall be three times the duty to which they would be subjected if imported unwashed.

Unwashed wools shall be considered such as shall have been shorn from the sheep without any cleansing; that is, in their natural condition.

Washed wools shall be considered such as have been washed with water only on the sheep's back, or on the skin. Wool washed in any other manner than on the sheep's back, or on the skin shall be considered as scoured wool.

The duty upon wool of the sheep or hair of the camel, Angora goat, alpaca, and other like animals, of class one and class two, which shall be imported in any other than ordinary condition, or which has been sorted or increased in value by the rejection of any part of the original fleece, shall be twice the duty to which it would be otherwise subject: Provided, That skirted wools as imported in 1890 and prior thereto are hereby excepted. The duty upon wool of the sheep or hair of the camel, Angora goat, alpaca, and other like animals of any class which shall be changed in its character or condition for the purpose of evading the duty, or which shall be reduced in value by the admixture of dirt or any other foreign substance, shall be twice the duty to which it would be otherwise subject.

We have purposely left out a lot of details connected with the schedule, but give the points in which our wool-growers are most interested. With the classification and rates of duty decided upon we presume those of our readers interested in sheep-breeding and wool-growing will be generally pleased. But there is one provision which the manufacturers have insisted upon being retained in this bill as it was in the McKinley bill, which practically cuts down the protective duties upon the highest grades of fine and cross-bred wools from 40 to 50 per cent. That is the provision exempting skirted fleeces from the duties imposed by the bill upon wools which have "been sorted or increased in value by the rejection of any part of the original fleece," upon which twice the duty to which it would be otherwise subjected is imposed. The provision we refer to reads: "Provided, that skirted wools as imported in 1890 and prior thereto are hereby excepted."

Practically that provision is a bonus of about five cents per pound to the Australian wool-grower, at the expense of our own people. It will include fine Merino and cross-bred fleeces, a great deal of the latter now being grown there, the result of crossing Shropshire and Lincoln rams upon Merino ewes, a class of wools representing fully a third of American-grown wools today. At least seven-eighths of the clip of this State will be reduced in value to the amount of this bonus, as it is composed of these two classes of wool.

But this is not all. When the compensatory duties of manufacturers were fixed, they were framed upon the duties levied upon unwashed, washed and scoured wools, this skirted clause cutting no figure. They therefore represent fully five cents per pound which the manufacturer gets credit for paying on his imported wool, but which he entirely escapes. How much this means will be seen when it is remembered that nearly all the clothing wools imported are of this class.

The worst of this unjust discrimination is that it is a direct impost upon the grow-

ing of the highest class of wools in this country, and an inducement to growers to only produce fleeces which will not come in competition with these skirted wools. It will prove a disastrous blow to the improvement of the quality of American wools.

If this bill goes through with the wool schedule in its present shape, it will be regarded as proof that the interests of farmers are sacrificed whenever they conflict with those of manufacturers, and that in this instance the latter are given an advantage that is grossly unjust and essentially dishonest.

In this connection we may state that ex-Governor John T. Rich is now in Washington, and has appeared before the Ways and Means Committee of the House, and the Finance Committee of the Senate, in the interests of wool-growers. In his talk before the latter committee he took substantially the same grounds upon the proposed schedule as has the FARMER. He writes that Michigan Senators are on the right side, and asks that wool-growers, sheep-breeders, and everyone interested in the sheep industry, write our Senators to sustain them in demanding a change of this unjust provision of the Dingley bill. The president of every association of sheep-breeders in the State should at once forward to Senators McMillan and Burrows, strong protests against this unjust discrimination, and ask them to do their best to have the provision relating to skirted fleeces eliminated before the bill becomes a law.

Since the above was written, a special dispatch received from Washington on Thursday last says:

"A conference was held to-day in Senator Burrows' office which was participated in by ex-Gov. Rich, Mr. George H. Wallace, a well-known wool expert of Las Vegas, New Mexico, and Congressman Sam Smith. The purpose of the discussion was to consider the desirability of a special provision for the raw wool schedule to cover importations of so-called skirted wools—i. e., fleeces from which the soiled and damaged parts have been trimmed away. Mr. Wallace presented a proposition, the details of which he does not care to make public at this time, but which involves certain restrictions upon the importation of skirted wools and of those parts which are cut away in trimming the fleeces. It is proposed to place a very high duty upon the skirted fleeces and to fix a rate upon the skirtings commensurate with their shrinkage when prepared for use. Mr. Wallace's plan will be laid before the finance committee by Senator Burrows and urged upon the committee as an important amendment to prevent importers from taking advantage of the opportunity to bring in wools of light shrinkage."

Mr. Wallace will be remembered as a prominent wool-grower, and once U. S. Consul in Australia. He is one of the best posted men on the wool industry in the country. With him and ex-Gov. Rich to represent this industry, its interests will be well looked after.

VERY UNWISE ACTION.

The State Senate did a very singular thing last week. It seems bills had been introduced allowing various boards of townships through which it was proposed to run trolley lines, to issue franchises to companies. The bills had passed both houses, when, without any apparent reason, the Senate reconsidered its action, had the bills returned and referred back to the Senate committee on railroads. Those who had taken an active interest in introducing and pushing these bills, assert that the action of the Senate was in deference to wishes of the railway lines with which these proposed trolley lines would compete.

This may not be true, but it will be hard to convince the farmers, in the sections where these trolley lines were to be built, that this action of the Senate was not taken in deference to the demands or requests of representatives of the railroads. It looks to us as very shortsighted policy on the part of the Senators, and equally so on the part of the railroads, to antagonize such enterprises. They will surely come if required and found to meet the needs of the people, and to attempt to prevent communities availing themselves of such means of communication brings to mind the attempts of the old stage lines to prevent the extension of railroads. Attempts to stop the development of trolley lines will be found equally futile, and in time will be regarded as equally ridiculous. Senators should not shut their eyes to the inevitable.

Mr. JAS. J. LISTER, a prominent farmer on Grosse Isle, near Detroit, died the past week aged 61 years. He was a member of the 9th Michigan Cavalry, and fought his way up to the rank of Captain. Returning home in 1865 he purchased a farm on Grosse Isle, where he lived until his death. He was a very successful farmer, took much interest in public affairs although he never held a political office, and was highly respected by all who knew him.

TOLL ROADS AND THE RIGHTS OF THE PUBLIC.

The gradual growth of public sentiment against the continuance of toll-gates on the highways leading to this city is generally referred to by the stockholders in such corporations as a proof of the spread of communistic opinions among the people, and the desire to secure certain privileges without cost, and at the expense of toll-road companies. These statements are far from being true. The antagonism of the people to such roads arises from two causes: first, the strict manner in which the laws protecting such corporations in collecting their revenues are enforced against the traveling public; second, the manner in which the corporations ignore the provisions of their charters binding them to keep such roads in good condition at all seasons of the year in return for the privilege of collecting such tolls. It stands to reason that to punish a man because he refuses to pay toll on a highway that is nearly impassable is unjust and tyrannical, because he has the same right to ignore the rights of a corporation that it has to ignore the rights of the individual. In other words, the provisions of such charters should be just as binding, and punished as severely and promptly in the case of the corporation as in that of the citizen. The past winter has seen public highways, upon which toll-gates are stationed and tolls collected, practically impassable; yet tolls are collected solely upon the agreement of the corporation to maintain the highway in good condition for the use of the public.

The legislature is being asked by many citizens for the enactment of laws to protect them against this gross injustice. We don't believe any new laws are necessary. Under the provisions of their charters we believe all rights of these corporations to collect tolls have been forfeited, and the residents along these roads should petition the prosecuting attorney of the county to take the necessary action to have their charters declared forfeited by the courts.

Such highways cannot be improved by the public until this is done, and as the toll road companies absolutely ignore all demands for their improvement, they are in a far worse condition than ordinary country roads in new districts. It is time this incubus on the public was removed.

An effort is being made to have Minister W. I. Buchanan, at Buenos Ayres, retained in his present position, and as an endorsement of his services the following extract from the *Review of the River Plate* is being published:

"We most cordially indorse the sentiments expressed in a petition which is now being signed by the most influential members of our English-speaking community, to be forwarded to his Excellency William McKinley, the incoming President of the United States, in which is set forth the earnest desire of everyone who has come in contact with Mr. Buchanan, either socially or in his official capacity, that he may be appointed to continue as Envoy Extraordinary and Minister Plenipotentiary of the United States to the Argentine Republic during the coming presidential term. It is given to few men to win such complete popularity, official and social, as has Mr. Buchanan, not only among his own countrymen but among those of every nationality with whom he has come in contact, and were it proper to do so we are perfectly sure that the Argentine Republic would intimate to President McKinley the gratification with which it would view his favorable consideration of the petition in question as promptly and cordially as the petitioners themselves. Mr. Buchanan is essentially the right man in the right place, and we are most strongly of the opinion that his removal, particularly at the present time, would be a severe loss to the interests of Argentina and still more so to the country he so industriously, ably and courteously represents."

The *Review* unconsciously gives itself away in indorsing Mr. Buchanan, when it says his removal "would be a severe loss to the interests of Argentina." We do not doubt this. He has been for years a persistent advocate of free wool, Argentina's greatest product, and he has done what he could to foster the interests of the flock-masters of that country at the expense of those of the United States. He has been there too long already. Any American can get such endorsements from foreign journals if he will serve foreign interests as successfully as has Mr. Buchanan.

THE Carriage Supply Co., of Geneva, Ohio, who manufacture the Sarvin Patent Wheels, are a reliable and responsible firm and make a wheel that is A 1 in every respect, and any reader who needs new wheels on his buggy or wagon can well afford to save some money by buying from this firm. They also furnish axles and set the boxes if desired. Full information sent free upon request if this paper is mentioned.

INSTITUTE APPROPRIATIONS AND SALARIES OF COUNTY OFFICIALS.

The following resolutions explain themselves:

Resolved, That the members of the Jackson County Institute Society, now in session at Brooklyn, believe that the present appropriation of \$5,000 by our legislature should be continued, and that the present legislature should be asked, by petitions from the farmers and farmers' organizations, to re-appropriate the same for institute work.

Resolved, That we heartily concur in House Bill No. 198, introduced by Representative Kimmis, providing for the pay of county officials by salaries instead of fees, and that all perquisites received by said officials be turned into the county treasury.

Resolved, That a copy of these resolutions be sent to Hon. Andrew Campbell and to Hon. Henry Teft, also to the MICHIGAN FARMER for publication.

H. A. LADD, Sec.

STATE CROP REPORT FOR APRIL.

Cool, wet weather prevailed in September, 1896, the temperature being below and the rainfall in excess of the normal, but in October the weather was unusually cold and dry, and on November 1 the wheat plant was small though in healthy condition. December 1 the average condition in the State was 91. During the winter the weather was not specially unfavorable and while in individual fields and localities wheat may have been more or less damaged, there has been no general or severe winter-killing throughout the State.

The average condition in the State, April 1, was 87; in the southern counties, 86; in the central, 87; and in the northern, 91; comparison being with average years. One year ago the average condition in the State was 86; in 1895, 85; and in 1894, 90.

The amount of wheat reported marketed in March is 657,428 bushels, and in the eight months, August-March, 7,534,871 bushels, which is 221,635 bushels more than reported marketed in the same months last year.

The average condition of clover meadows and pastures is, in the southern counties, 91 per cent; central, 87; northern, 89, and State, 90. Live stock is reported in good condition, the averages ranging from 95 to 98 per cent.

The outlook for apples seems to be favorable; correspondents, however, are of the opinion that the heavy crop of last year is likely to be followed by a light one this year. Peach buds have been generally and severely injured. Other fruits promise well.

German Sugar Beet Seed.

Send twenty-five cents to Hill's Seed Store, Detroit, and they will mail to you German Beet seed, the genuine sugar variety, sufficient to plant a row 200 feet long.

LUPINES FOR SANDY SOIL IN MICHIGAN.

During the past twenty-five years I have tried the white and the blue lupines so highly spoken of in the old country. They have been tried on a variety of soils, not only every year in our grass garden, but occasionally on the farm proper. I have never seen a crop that could be called anywhere near profitable, compared with some of our best grasses and clovers. There is one species of wild blue lupine. I have several times sowed seeds, and have several times transplanted some roots. It is very tedious to get it to going and the tops above ground are very small and do not cover the ground well. To hold shifting sands there are several native grasses found along the lake shore that are good, as they have very long rootstocks. I am trying quack grass and Bermuda grass on the sand dunes at Grand Haven.

W. J. BEAL.

[The above comes to us from Prof. Beal of the Agricultural College. His long experience in studying the grasses and forage plants of this State, their characteristics and limitations, renders what he says regarding the lupine as entitled to credit. Perhaps the correspondent who made the inquiries regarding this plant could try quack grass or Bermuda grass for the purpose he wished to use the white lupine. This subject of securing a plant which will sustain itself in the loose shifting sands of some sections of this State, so as to reclaim them and finally render them fit for cultivation, is one which will become more important from year to year. The question has been forced upon the attention of the French government through the high valuation of farm lands and the necessity of utilizing these sand wastes for the production of crops of some sort, or for planting forest trees. As farm lands become more valuable in this State the subject of reclaiming these sand wastes will be forced upon the attention of the enterprising, and what can be learned in advance by study and experiment will not be lost.]

SOME of our readers got the idea that Mr. C. L. Hogue offered to send his pills, for the cure of roup in fowls, free. This is a mistake. While he is quite a philanthropist in his way, he cannot afford to do this, as from the requests he receives he would soon be bankrupt.

THE French, British and German governments are busy, through their agents, extending the benefits of civilization and christianity to the inhabitants in the interior of Africa. They send armed bands to attack the natives, seize their country, and shoot them if they offer resistance.

Of course these natives profess Paganism or Mohammedanism, and to drive them out or murder them so as to allow good Christians to occupy their places is a sure method of introducing gunpowder, whisky, and other advantages of higher civilization upon which Christian countries pride themselves. Let us be thankful that we are civilized.

NEWS SUMMARY.

Michigan

A tannery plant to cost about \$12,000 is one of the latest industries proposed for Menominee.

The trial of the officers of the defunct Big Rapids bank has been postponed until June, when it will take place at Ludington.

Col. A. T. Bliss, of Saginaw, was elected commander of the Michigan G. A. R. by acclamation at the annual encampment at Greenville last week.

The house of representatives at Lansing passed the Flint charter bill over the veto of Gov. Pingree last Tuesday, and the following day it passed the senate by a unanimous vote.

J. S. H. Holmes, who was last year convicted of murdering a motorman and sent to prison for life, was given a new trial last week. He pleaded guilty of manslaughter and was allowed his freedom upon payment of a fine of \$1,000.

Saginaw is taking steps toward securing a beet sugar factory. About 250 farmers in that region have signified their willingness to experiment in beet growing this season and 600 pounds of beet seed has been secured and distributed.

The Jibb oleomargarine bill which was amended by the house at Lansing, was passed by the senate in its amended form last Wednesday. The vote stood 25 to 5 and the measure is now ready to receive the governor's signature.

Commissioner Grosvenor of the pure food department announces that in the future the bulletins issued by the department will contain the names of all retail and wholesale merchants found guilty of handling or dealing in adulterated food products.

General

The great Knox hotel at Knoxville, Tenn., was burned last week and a number of the guests perished. Other buildings were destroyed and the loss is estimated at more than a million.

As commissioners to attend the international monetary conference which is expected will be held in the near future, President McKinley has appointed Senator Wolcott, of Colorado, Hon. C. J. Payne, of

Boston and ex-Vice-President Stevenson, of Illinois.

President J. B. Angell, of the University of Michigan, has been named as minister of the United States to Turkey. His name was sent to the Senate on Wednesday. Ex-Congressman George D. Meiklejohn, of Nebraska, was appointed assistant secretary of war.

Ex-Senator Daniel W. Voorhees, of Indiana, died at his home in Washington, last Saturday morning, at the age of 76 years. His term in the Senate expired last March. He had long been a sufferer from rheumatism of the heart and his death was not entirely unexpected.

The Populist majority which dominates the board of regents of the Kansas Agricultural College, Manhattan, Kan., have dismissed Professor George F. Fairchild, who for 18 years was president of the college. His discharge was followed by the removal of fourteen other members of the faculty and numerous other employees of the institution.

Booming Times.

Few people realize the remarkable advance that has been made in the gas and gasoline engine industry during the last few years. P. F. Olds & Son, engine builders of Lansing, Mich., commenced the manufacture of gasoline engines in 1885, in a 1 1/2 story frame building, 18x36 feet, with a capacity of 12 engines per year. Later on they built a 2-story brick, 35x110 feet, but soon had to add another building 25x55, and later on another 30x155, and at the end of ten years had a capacity of 500 engines per year, and were shipping them to all quarters of the globe. Their policy from the start was never to allow an engine to leave the shop unless they knew it was perfect, and by the year 1895 they had engines in 144 towns and cities of Michigan and nearly as many in each of many other states. During '95 they brought out what is known as the "New Olds Safety Vapor Engine," which dispensed with all the usual complications seen on engines of this type, leaving it free from cams, gears, worm gears, levers, lateral shafts, etc., the valve mechanism being operated by a plain eccentric on main shaft. This machine can never get out of order or wear out, is absolutely reliable, and free from all danger. So popular was this engine that the company soon was overwhelmed with orders and were compelled to build a new addition 60x150 feet to their works, and equip with the most modern machinery and appliances, and they are now able to keep in the lead in the production of a power not surpassed anywhere in the world. A cordial invitation is extended to visitors to come and see the modern wonders in course of manufacture and in operation. The company has just put on the market a pumping outfit which promises to replace the windmill, as it is reliable and has a capacity of 600 gallons an hour. Everything they manufacture is under their own patents exclusively.

Cheap Rates to New York via Grand Trunk Railway System.

On account of the Grant Monument Cerebral at New York City April 27th, the Grand Trunk Railway System will make rate of one fare and a third to New York and return. Tickets will be sold April 23d to 26th inclusive, and will be valid to return up to and including May 4th. For tickets and information apply to Detroit City Office, 84 Woodward Ave., Detroit, and all agents of this company.

GRAND PRIZES ACTUALLY GIVEN

For Full Particulars Read the Following Very Carefully. Contest closes May 5.

LIST OF PRIZES.

To be awarded to the 150 persons sending the largest lists of correct words (according to rules) to be made from the word **ENCYCLOPAEDIA** to be awarded when contest closes, May 5, 1897.

For Largest List, \$500; 2d, Bicycle; 3d, Parlor Organ; 4th, \$65 Sewing Machine; 5th, Buggy; 6th, Solid Gold Elgin Watch; 7th, Suit of Clothes or Dress; 8th, 9th and 10th, Springfield Quick Train Watch to each; 11th, Colt's Rifle, or Library of 30 Cloth Bound Books; 12th to 60th, 49 Solid Gold Rings with Genuine Diamond Settings; 61st to 85th, 25 First Class Watches; 85th to 150th, 65 Zambulo Diamond Gem Rings, value \$5 each. Total, 150 prizes to the persons who have largest 150 lists.

You Will Also Get Free of Cost

In addition to this opportunity to earn one of the above named 150 gifts will positively receive, by return mail, one package containing all the following articles in our **AMERICAN NATION PREMIUM PACKAGE**.

1 Grand Collection of 64 Photographs of noted persons, on cabinet size, alone worth more than the cost of entering the contest.

Five Books Each containing a complete Story by a noted author. These books will please every reader. THEY ARE NOT OFFERED BY ANY OTHER PUBLISHER. New stories. New books.

1 Unique Case for carrying postage stamps; this case is also impregnated with a quantity of sweet, odoriferous sachet-plum which will keep your clothing charmingly scented whenever you carry the case in your pocket.

1 Table Mat, made entirely of wood, 319 pieces, beautifully sold in America at \$1.00 each, we have obtained an immense quantity through failure of importing house and now send one mat in each Premium Package.

You get everything named in the above, in one package, by mail postpaid, when you send 30 cents to pay for 3 years' subscription to **AMERICAN NATION**. We send the Premium Package immediately, but the 150 large prizes will be awarded and sent after May 5. See **AMERICAN NATION** for list of winners.

This is the Seventh Grand Contest of the old reliable **AMERICAN NATION COMPANY**. This season we are surpassing all previous offers in magnitude. Let us tell you all the facts. We publish a large, well-printed, illustrated Monthly Journal called **AMERICAN NATION** which is filled with interesting and thrilling stories, jokes, sketches, etc. One feature is music, we give two pieces of full size sheet music in each issue. **AMERICAN NATION** also contains a vast amount of entertaining Games, Puzzles, Exchange Department, etc. You will enjoy our Magazine. We now make a most remarkable offer to send **AMERICAN NATION** three full years, postpaid, for 30 cents and to every person sending 30 cents for 3 years' subscription, we will give 5 Story Books, 1 Japanese Mat, hand-made, of 319 pieces, beautifully hand-painted, 64 Photographs of Noted Persons, on Cabinet Size, and a Nice Case of Sweet Plum-Lily perfume. All these things you will receive in a package, at once, postpaid, when you send 30 cents to pay 3 years' subscription, and you would naturally suppose that the above bargain was a big 30 cents worth, but this is the age of wonders so we go still further by giving you an opportunity to compete in our

WORD CONTEST. In this contest you are to see how many words you can make out of the 13 letters in the word **ENCYCLOPAEDIA**. Make up words in this plan: eye, clay, day, pay, pad, aid, die, ape, pole, etc., always confining your selection to the letters that appear in the word **ENCYCLOPAEDIA**. Closing date of contest extended to May 5 by general request.

You will find it a very pleasant study to produce the words and will soon succeed in getting quite a list. When you have obtained all the words that you are able, send your list to us, with 30 cents. Your name will be entered for a 3 years' subscription beginning with next month's issue. You will at once receive the **AMERICAN NATION Premium Package** containing all the goods above described, and your list will be entered in the contest which closes May 5, 1897. Just as soon as the contest closes, a committee of reliable persons in which we expect to include a clergyman and a school superintendent, will carefully examine all the lists. If your list contains the largest number of correct words, you will get \$500. In money, the second largest, a \$100. Bicycle, and so on, down through the list of 150 Grand Prizes described on this page. If you give your attention to this matter in a little while you are quite certain to be a winner of one of the big prizes. Please keep this fact in mind, that as soon as you send 30 cents you will get gifts worth over that sum, and will also receive **AMERICAN NATION** for 3 years, and in addition to these you are likely to receive \$500, in cash, or some other costly gift.

The word to be used

Out of this word of 13 letters you should be able to make quite a number of smaller words. You must not use any letters twice in making a word except E, O or A which you can use twice in a word if you desire as those letters appear twice in **ENCYCLOPAEDIA**. The letters A, I and O will be allowed as words themselves if they are given as such in the dictionary. We will allow no abbreviations, proper nouns (names of people, places, etc.) and no foreign language words. Lists must be arranged alphabetically. As many people are not owners of a large dictionary and cannot afford to pay eight or ten dollars for one, we shall base our examination upon words to be found in the **AMERICAN NATION Dictionary**, which is a practical, well gotten up book, that we will send, postpaid for 25 cents. We do not insist that you buy this dictionary, but if you do it will greatly enhance your opportunity of winning a large prize. The Dictionary we sell at 25 cents is well worth the money for your use, will always prove valuable at home and the price is so low that you cannot afford to be without it. This Dictionary will be promptly sent if you forward 25 cents to **AMERICAN NATION CO., Waterville, Me.** Some people imagine that their list will be thrown out if it contains words that are unavailable; not so, we shall simply eliminate inadmissible words and count the correct ones unless it is evident that the list is gotten up regardless of attention to the above simple rules. Take notice that your list must be mailed to us not later than midnight of May 5, 1897. Should two persons have lists of equal number of correct words, prizes will be divided fairly, according to judgment of committee.

You must mail your list at your post-office before midnight of May 5, 1897 and you will then be an admitted contestant. If you want to take advantage of any of our other advertised offers, you can do so, without trouble, and while we will send your goods immediately, **AMERICAN NATION** will be continued for the number of months remaining beyond the 3 years mentioned in this offer, or if you are already a subscriber, we will add 3 years to the end of present subscription. To send us 30 cents safely, get a money order at your express or post-office, or send stamps. If you send silver wrap it carefully. Put your list of words, subscription order, letter, and payment all in the same envelope. Just at present we are making another offer, a lot of Seeds, Books, Pictures, Music, etc., with **AMERICAN NATION**, six months. If you send us 50 cents, we will send **AMERICAN NATION** 3 years and 6 months, will also send all the gifts offered in this and the other advertisement, and you will have an opportunity to get a great prize for success in the Word Contest.

PRIZES WILL BE AWARDED FAIRLY.

This is to certify that the **Waterville Trust and Safe Deposit Co.**, has from the **Publishers of American Nation**, a special deposit of \$500.00 to pay first prize in their word contest which closes May 5, 1897. We further state that we are well acquainted with the above mentioned publishers, that they are known to us as an honest and reliable concern and financially able to meet all obligations. We will forward the \$500.00 to the winner of the contest as designated by examiners, and we are confident that the prizes of merchandise will also be awarded with absolute fairness.

Waterville Trust and Safe Deposit Co.,

R. E. ATTWOOD, Treas.

Personally appeared before me G. F. Terry, representing the publishers of **AMERICAN NATION Magazine**, who, being duly sworn testifies that he will personally attend to a prompt and honorable distribution of the prizes offered in the word contest ending May 5, 1897.

(Official Seal.)

Notary Public.

Address **AMERICAN NATION COMPANY, - No. 944 Maine Street, Waterville, Maine.**



The Household.

CONDUCTED BY MRS. ELLA E. ROCKWOOD,
FLINT, MICH.

We should be pleased to have any of our readers who take an interest in household topics, send in their views and opinions upon any subject which is under discussion, or which they wish discussed. This invitation is general, and we hope to see it accepted by many. Address all letters for THE HOUSEHOLD to Mrs. Ella E. Rockwood, Flint, Mich.

THE EASTER BIRTH.

Again the flower-shoot cleaves the clod;
Again the grass-spear greens the sod;
Again buds dot the willow-rod.

The sap released within the tree
Is like a prisoned bird set free,
And mounteth upward buoyantly.

Once more at purple evening-dream
The tender-voiced, enamored stream
Unto the rush renews its theme.

How packed with meaning this new birth
Of all the growing things of earth—
Life springing after death and dearth!

Thou, soul, that still dost darkly grope,
Hath not this, in its vernal scope,
Some radiant resurrection hope?

—Anton Scollard in April Ladies' Home Journal.

HOME CHATS WITH FARMERS' WIVES.

EASTER.

Again it is here, the joyous Easter-tide. We welcome it anew with each recurring year. Like Christmas, it is old, yet ever new.

Easter is now much more generally celebrated than in former years. Not so very long since it was known principally as Paas, the day when everybody tried to eat as many eggs as possible. Few of the churches observed the day in the manner which they now do. The beautiful flowers which are used to symbolize Christ's resurrection were just as beautiful then, but they were not so lavishly displayed.

The bursting bud is truly typical of Christ's escape from the tomb. All nature is awakening at this season and putting on new life. We can better understand the great mystery by reason of nature's handiwork in renewing herself, evolving life from apparently lifeless twigs and roots. This, too, is why the egg is used as an Easter emblem. Hidden within its shell is the tiny spark of life which will in time burst its bonds and come forth a new creature.

Let us look back over the centuries at that first Easter dawn.

The sorrowful ending of the previous days when, contrary to the expectations of his friends, the Saviour had perished by an ignominious death had cast a gloom over all. He was dead; their friend, teacher, companion; the master whom they loved to serve. They had seen Him in His tomb; silent He lay like any other form from which the vital spark of life had fled. They had done all that they could; angels could do no more.

Yet when the Sabbath was past they went again to the sepulcher, but found Him not. Instead was the angel who announced that He whom they sought had risen from the dead. There lay the grave clothes, but He who had so lately worn them was gone, arisen again to life.

Can we not imagine their joy? Those devoted friends who had loved Him so, and who had so fully believed in Him, had lost hope when they saw Him die. Now to be told that He lived again was joy indeed. Do we wonder that they made haste to spread the glad tidings? Can we not hear the eager inquiries as they ask each other concerning him? Then when they see Him once more and hear Him speak, their joy is indeed complete.

It is truly a beautiful story, one which we never tire of reading. I hope every mother of our Household band will gather her little ones about her on this Easter day and read from the Bible this wonderful account of the first Easter. Explain it carefully to them; tell them all the facts connected with Christ's crucifixion and death. Then the glad meaning of the day we keep in remembrance of His resurrection will be fully understood. Probably they are already familiar with the story; if so it is just as well to read or tell them of it again. It is a pretty custom, this of gathering the children together each Easter and telling over again the beautiful significance of the day. So many children are ignorant about it. I well remember in Sunday school once asking the little ones about it. One, when asked why we kept Easter, or what the day meant, replied, "It is the day we eat

eggs." That was all the child knew about it.

Some parents are very careless about instructing their children in these things, allowing them to grow up in utter disregard for things holy. They do all from a material standpoint that they can, but leave religious teaching out entirely. I can but think if children were taught from the Bible the beautiful stories with which it abounds that they would grow to love to read it for themselves when they are older.

Do you know it makes me feel sad to meet a person who does not believe in the Bible, in God, in the Saviour. I think, oh, you poor soul, how much you are missing. It is like going in rags and living in poverty when there is a great storehouse full of good things right at hand to be had for the asking. Easter means nothing to such an one. Christmas is but a festival, a feast day, a mockery to one who does not believe in the Saviour. The Bible, so full of comfort for the sorrowing, so full of precious truths to the believer, of promises which the Christian relies upon in the hour of trial, means nothing to him who scoffs at its Divine origin. It may be true that we cannot realize the loss of something which we never possessed, and in this way the unbeliever cannot appreciate the blessings which the Christian enjoys. Yet who among those who believe on His name can contemplate, unmoved, the untold loss of those who will not receive Him? When we think of the joy which might be theirs, both here and in the future, yet which is persistently refused, we realize, if they do not, what they are missing—who reject the Christian's belief.

EASTER.

Long ago, when Ignorance persecuted Truth, and Bigotry pressed the thorny crown upon its head, and Brute Force bound it with thongs, and Hatred scourged it at the pillar, and Might crucified it, then Pity buried it and rolled a stone above its grave and left it for dead. Then all Nature sorrowed and many wonderful things happened because Truth was dead; and all the virtues wept and some came to sorrow and grieve at its grave, then left, all but Love and Faith, who still kept their vigil at the sepulcher.

Then from out the persecution, the bigotry, the hatred, brute force and might, springs forth again that lovely Truth, shining with transcendent light, rising with tenfold strength and majesty, filling the universe with new life and light, sometimes hid or blindingly put aside—but never dead—flashing into some souls with powerful force, sending a ray into others and shining with steady brilliancy through the lives of those who are gentle and still.

Never a nature so low but some trace of Truth has found it; never a heart so false but Truth will change and fill it; never a creed so narrow but Truth may enter in it; never a world so dark but Truth will illumine with its splendor. Persecution and hatred are vain, Truth will eternally reign; Easter, glad Easter is here, for Truth from its grave has arisen. L. M. B.

HOME SANITATION.

FRESH AIR.

Women should understand the details as well as the theory of sanitation, and the first question is, What is sanitation? The definition is, "The practical application of sanitary science and the laws of hygiene to the maintenance of health."

In the olden times sickness was held to be a direct interference of Providence as retributive punishment, but to-day it is more frequently held to be the sin of ignorance. Although there are diseases that no amount of forethought could prevent, yet much ill health can be avoided by the housekeeper's knowledge of sanitary laws.

The prime essentials of good health are fresh air, pure water, good food, exercise, bathing, sleeping and clothing, and the most liable to be overlooked is fresh air. This, sanitarians agree, is the first essential of a healthful home, and will do much toward keeping each member strong and active. Ventilation must be considered, and there are means by which every house can be ventilated, and this through the doors and windows, combined with a foul air outlet, but avoid as much as possible draughts of either warm or cold air. This will necessitate an outlay in additional fuel, but this is preferable to doctor bills.

The ideal house is aired by the means of flues, but the ordinary house has to be dependent on the windows for a quick change of air. Under the ordinary conditions of living, the air made impure by breathing and the burning of lamps has a tendency to rise, therefore the outlet of foul air should be in the top story, for if this foul air can escape, its place will be filled with pure air drawn in around the doors and windows.

The height of rooms should not be over twelve feet at most, unless more than the usual means are provided for the escape of the vitiated air which accumulates near

the ceiling like an inverted lake. If it is impracticable to have a skylight at the top of the house, which is the best means of ventilation, a window in the top story should be kept open the most of the time.

Sleeping rooms should be kept cooler than the living room, and whenever used through the day for a sewing room, or for any other purpose, it should be thoroughly aired before bedtime.

The living rooms should be kept at a temperature not above 70 degrees F., and the last one of the family to retire at night should give the rooms a thorough airing that the foul air may not make its way through the house. Open the windows of your room as soon as you are dressed, not forgetting to open closet door also. Remember when the temperature outdoors is much colder than indoors, a great deal of air will force its way into the house, and the windows should not be opened as far as at other times.

After the rooms are aired in the morning in cold weather, they should be quickly warmed to make them comfortable and safe, and to prevent remonstrance from the family. The housekeeper should be more particular about the cellar than the parlor, as a German experimenter proved that one-half of the cellar air made its way into the first story, one-third into the second and one-fifth into the third. We may consider the cellar a reservoir of air for the whole house, and the woman who has the best interests of her family at heart will never leave decaying vegetables, apples, etc., in the cellar to poison the air they must breathe. The cellar should have a concrete bottom that is entirely impervious to air. It should be light, dry and clean. Ventilation should be provided through windows on opposite sides that a current of air may be obtained. In very hot weather the windows should only be opened at night when the outside air is cooler than that in the cellar.

Every spring the cellar should receive more attention than any room in the house. It is best to give it a good whitewashing with lime. Every unnecessary vegetable and all perishable articles, even boards, must be carried out. Sweep clean, and the last thing place in an old pan about a quarter of a pound of sulphur on a few coals, set in the center of the cellar as far away from any wood as possible, and leave the windows closed for twenty-four hours; then, if the cellar has an earth bottom, sprinkle lightly with strong copperas water, then open the windows that the air may absorb the surplus moisture before it has an opportunity to mold. When the cellar is properly cleaned the odor of printer's ink on the freshly papered fruit shelves should be the one to greet you on entering.

Wherever a lamp or gas jet is burning, an abundance of fresh air must be provided to make up for the oxygen consumed by the flame. All combustion uses up oxygen, and produces carbonic acid gas, and, with the exception of the electric light, all artificial illumination is a great tax on the air supply. It is estimated that an ordinary gas jet consumes as much air as two people, and a kerosene lamp as much as four people. Electric lights consume no oxygen or air, produce no carbonic acid gas, do not vitiate the air, and make the least heat of any illumination.

The lamp kept burning at night should be filled daily, as it burns less oil and is less liable to explode, and it should not be turned low, as a part of the oil will escape which vitiates the air, just as much oil is burned, and there is nothing gained, except a smaller amount of heat given off.

Cold air in the sleeping room is a luxury, if the body is kept comfortably warm beneath woolen blankets, which are preferable to heavy, padded quilts. The most propitious temperature for sound slumber is 45 degrees F.

When we consider the fact that two and three-fourths pounds of effete matter is thrown off every twenty-four hours through the lungs, and two pounds through the pores of the skin, we conclude nothing can be more essential than pure air. NINA BELLE.

A HARROWING EXPERIENCE.

"Cultivate the imagination. It brightens much that is hard and prosaic in life." I read the above twice, thought very likely it was true, and wished the writer had given a few hints upon the best methods of cultivation.

That was yesterday. To-day I advise all to dispose of what imagination you have on hand and sweeten up the prosaic side of life with almost anything else.

We were invited out last evening. A sudden change of weather made my going inexpedient, but I insisted that the others go. I assured them there was nothing to be afraid of; that I should enjoy being alone.

My first act of bravado was to go through one darkened room into another in search of a book. I took the first one at hand; it

proved to be "The secret doctrines of the Brahmins." I felt it was not a good work for the opening exercises of a lone vigil; but I was soon lost in the mysteries of the magi, and thus an hour of that awful night went by.

Glancing from my book my eye fell upon a card from our editor, saying she might be with us the following day. Now, editors are carnivorous, ethereal as they sometimes seem, and if I complied with this requirement of her nature I must go and close the door to the chicken park. I did not stop to cultivate my imagination, but in less time than it seemed possible I had fastened the door and was well on my way back, when—"shades of my forefathers"—there, leaning against the woodpile, was a man. Not a small man; such as I could handle, but a monstrous man. I thought it was Mark Hanna, but what would he be leaning against the woodpile of the most "died in the wool" democrat in the county for? No, it wasn't Mark, but it might be the materialization of Ben Butler. My hour of reading in occultism confirmed it, and I had said but a short time before that there was time enough to furnish Benjamin a statue when we had forgotten some things, and I remembered how vindictive Ben had always been. Just then a gust of wind blew one corner of his robe (which I had thought resembled a Roman toga) and I discovered it was an old horse blanket which someone had thrown there to dry. I would not want to say I walked on air the rest of the way to the house, but I don't think I touched the ground.

I read no more, but sat down to write, and soon launched away from my own surroundings, when square came something against the window pane with a dull, heavy thud. It proved to be a yellow cat. I had never seen it before, but come to see her to-day she seems to have shrunken wonderfully. I thought it was a lioness from Lincoln park that I had greatly admired, and you see I had not yet cultivated my imagination.

I could not get my nerves back to a normal condition, but I kept on writing. The clock ticked as I had not heard it in thirty years. My pen gliding over the paper sounded like a snow plow, and the worst was yet to come. It was a pistol shot in the cellar. I sprang to my feet and waited. We may not measure eternity, but I made an estimate on it while that waiting continued. I shall never forget the sensation at the roots of my hair. For once I was glad there was no more of it than there is, and I wondered if it was turning white. In the midst of that awful ordeal I realized the importance of men.

Well, it developed that a hoop had burst from a barrel, but no light has come to me yet as to why the irony of fate visited upon me in this one and only night I had been alone for years, so many disturbing agencies. But it settled the cultivation of the imagination. Such as it is, I have a plenty. LUCY SWIFT.

FLINT.

A MODEL HUSBAND.

As I am a new caller, I'll not stay long, but I just want to say to "Farmer's Wife," train the boys (if she is blessed with one or more among her three children) to stay at home evenings. And if mother or sister happens to be otherwise employed, teach him to amuse himself. Teach him not to think that as soon as the evenings are a little lengthy that he must go to some chum's home to pass the time till bedtime, but to find amusement at home. That he can even help to amuse others, if those others are only mother, sister or some member of his own home. Teach him to thoroughly understand that home is a place to live in, not merely to eat and sleep in, and I think that when he gets a wife he will think that she is at least as well informed as the neighbors' wives, where so many men like to pass their evenings.

Also to M. E. S. C. I want to say that I don't think it would hurt that lord and master of yours to eat bread and milk for his Sunday dinner if it did make him "out of sorts." My husband dines on that same diet not one Sunday, but I'll venture to say forty-nine out of the fifty-two, whether I am at church or at home curled up in his big chair, (his I say, because it is so big and roomy) and he don't get out of sorts over it either, but then I have got the model husband as I wish every woman had.

Now let me ask a favor and I'll be off getting that Sunday dinner of bread and milk for that husband of mine. Can any of the readers of these columns send to the Household the poem beginning,

A youth sat weeping silently,
And on his woeful face, once innocent,
Might now be seen the shadow of disgrace.

I learned this when a child and would very much like the piece. I pasted it in a scrap book but in lending the book this piece got lost. I hope this isn't too long a call for the first one. DICK.

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CONTENTMENT IS THE KEY TO HAPPINESS.

How many of us have that key in our possession and how many expect to possess it, when the mortgage on the place is lifted, the old house replaced with a new one and business cares shifted on someone else? Just so sure as we do not cultivate contentment as a virtue, the habit of looking for happiness at some future time will have become so fixed that we will never enjoy life as we go along.

None of us can deny the fact that a general business depression has settled over all the land and it is our business to plan our affairs, not to live better than someone else, but to live within our means and to try to make both ends meet, even if we must do without much that we once could have had.

There is an endless list of articles in every household that must be had, and as many more that we think we need, yet could get along without and hardly realize the difference at the end of the year. We do not like to down our love for the beautiful when it takes but little to secure the many works of art, or some fancy articles, yet that little may satisfy some obligation and give us the assurance that the means have been rightly used.

The time for renovating is fast approaching and we may find that we may have to give up some cherished plans for something new, and if the something happens to be a necessity we may fret about it, making all about us miserable, or try to be contented with what is not forthcoming. If the carpet has become shabby, but must do service a little longer, take your brightest rags to your weaver and have some rugs woven. You will find they brighten up the room, but if there is a time you want your room to look its best tack the rugs down or someone will be sure to kick them up and expose the worst places in the carpet just when you want them hid. Then don't tell all of your friends who visit you what you wanted but could not have, for they may not notice it at all if you only keep still.

You may think you have made over, turned and darned some worn-out carpet or garment about the house until mending has ceased to be a virtue; you then go meekly to the master of the house and say you must have new and he tells you to fix up the old and make it do. You may be tempted to get discouraged, but don't do it; just be thankful your husband appreciates your ability to make something out of nothing.

Just now in the midst of the financial turmoil we need more than ever to enumerate our blessings, and if an especial one has been ours hold it aloft before our mutual vision. It is not what we have, but what we are and what we do for others that brings contentment. Sighs and groans are disenchanting and will never act as a magnet to draw friends about us. All sympathy and respect to those who truly need them, but not to those who are never satisfied under the most favored surroundings, for we may have luxuries on a small income as "contentment is a continual feast."

ELLEN OF JACKSON CO.

SHORT STOPS.

WILLIAM'S WIFE, writes:—Is there room for me in the circle? It looks as if there had been a regular cyclone of letters and they had all struck our editor's desk. But what a lot of sad and unhappy wives there are. Let me say to you, be a companion to your husband if he is a good man; if he is not, try and make him one. Raise his standard, do not let him lower yours. And to those who would like to attend Sabbath school, as your children get large enough to attend, perhaps your husband will see the necessity of it and go with them. I know a family of children that have been sent to Sunday school all their lives, the parents never going with them, but they will go miles to attend a party. Children have got to be trained the six days at home or the seventh day will not be apt to do them much good. I often think of Josh Billings' words: "If you would train up a child in the way he should go you will have to walk that way two or three times yourself." Also our editor's story of the little boy walking in the deep snow: When asked how he got along so well he said, "I stepped in father's tracks."

Oh, why can't men see what kind of tracks they are making for the boys? In a few years the boys will have families of their own and will take their father's place in the world, and then their own children will follow along in the same old track whether it be right or wrong. But let the children attend Sunday school by all means. Many times they have been the means of getting the parents interested. If there are any men who are not in the habit of attending church, who read this, I say to them, turn over a new leaf and next Sabbath ask your wife to go with you. How much good it would do her! We think altogether too much of what we are going to eat and drink on the Sabbath and not in what way we can spend the day for the most good and keep it holy as God commanded. I never feel so much inclined to labor as on Monday morning after attending a good sermon. One would think, to hear some men talk, that their wishes and theirs alone must be consulted on every occasion and under all circumstances. I would say to the women, arise, get ready, and at the sound of the bell, take your little ones to

the house of God and rest from care and enjoy thy Creator's gift, the Sabbath.

Here is a verse suitable for a very small child to speak at the opening of an entertainment.

Big folks and little folks, how do you do?
You're glad to see me and I'm glad to see you.
I hope you'll forgive me for being the first,
But it always is best to begin with the worst.

M. K., of Macomb Co., writes:—I have been a reader of the Household a long time, but have never ventured to enter its door. I am a great lover of flowers and enjoyed my sweet peas so much last season that I want all of the sisters to have some this summer so I will try and tell just how I raised them. I had any amount of flowers, while many complained of an ample growth of vines and no flowers.

In the first place, choose your bed in some old sod if you have some convenient to the house, for you want them where they can be seen from the kitchen if possible, as there is where farmers' wives are the most of the time in summer. Next dig a trench one foot wide and one deep and as long as you want it. Then get hen manure and fill in one inch deep, and cover about an inch with dirt so the seed will not come in contact with the manure. Sow your peas quite thick in the center of the trench, and cover with an inch of soil. As soon as they come up commence filling in the trench and continue to do so as they grow until it is even with the ground. Water freely if it is a dry season, and if you have good seed I will warrant an abundance of flowers, and the more you pick them the more they will bloom. I keep the seed pods all picked off, as they will not bloom so well if allowed to go to seed. We bought our seed by the pound. Get three of your neighbors to club with you and send for a pound—that will only be ten cents apiece, as they are forty cents per pound. I may come again and tell how I raise my verbenas.

AUNT JENNIE, writes:—Spring is here with cold raw winds which chill our bones and chap our hands. For the latter trouble let me suggest a remedy and, what is more to the point, a preventive if the difficulty has not yet commenced. In washing the hands use soap as little as possible. In its place use cornmeal wet with vinegar. When obliged to use soap rinse well and rub the hands over with the meal, rubbing until dry without rinsing. It is well also to repeat this process before retiring for the night. The hands will soon be soft and velvety.

Will some of the Household sisters tell me the best method of caring for the large, spotted-leaved leopard plant? The leaves of mine turn brown around the edges; brown spots also appear on the surface, and the leaves die.

MANY THINGS.

How many new correspondents appeared in the Household last week! It is pleasant to feel that more and more farmers' wives and daughters are being drawn into the friendly circle, but I always miss the old familiar names if they do not appear frequently. It is long since I last met with you, but the Household is a most welcome visitor every week.

I wonder how many sisters belong to a Grange or Farmers' Club? Of the work of the clubs I know very little, except from the reports which appear in the papers, but the Grange I believe to be the model organization for farmers and their families. I was born a granger and would not think of living without its benefits, when there was one within reach. Never yet have I found anything that could take its place. There are members in our Grange, who, joining in middle life, and never before having had training in literary work, protested earnestly against taking any active part in programs. Now they can not only read, but write or speak as well. There is an atmosphere that encourages each to try, and you know that is half the battle. The sisters are not by any means the "silent partners" in our meetings, sometimes getting even more than their lawful half of the discussions. Though we sometimes make mistakes, of course, as every order or individual does, yet the whole influence of the Grange is toward higher living, broader knowledge, and charity toward all men. It is founded on the principles of "faith, hope and charity," and when you come to think of it, that means a broad, firm foundation.

Last week we met at the home of Bro. J. H. Brown, of MICHIGAN FARMER fame, and though the mud was truly "awful" very few members were absent. Bro. Brown gave as his quotation the most appropriate one we could think of—"We want good roads." And we did. We wanted them right away—that afternoon, but they did not come.

Now a word in regard to traveling libraries. We have recently received our fourth library in our neighborhood and I think we are all convinced that we do not wish to get along without them. Mrs. Spencer has taken much time and trouble to secure for us this benefit, and the least we can do is to voice our appreciation. Let me urge all of you who live in communities which have not availed themselves of this plan, to push the work if you can. You will never regret it, I am certain. Very few of us can afford to buy all the books we want, and this is the next best thing.

As I read Lucy Swift's article on "Leaving Home," I am undecided as to how far I agree with her, certainly not in the assertion that we are letting the country school run down. I do not believe the district school was ever in a more prosperous condition than it is to-day. Of course there

are exceptions, but I think this is true of the average. The new system of grading is proving itself a good one, and in many schools ninth grade work is regularly taught. Has it not always been true that parents gave too little time and attention to the school? And is this neglect any greater than in the past? The benefit derived from sending the boys to school in town depends largely on the character of the school. Some high schools are very good, some mere cramming machines, and others a mixture of good, bad and indifferent. If the school is good I do not think the boy is being "pampered in the lap of luxury" by being sent to it. Giving him a good education and making home a pleasant place in no wise prevents your teaching him to use his judgment, or to remember his duty to the family. There are just as many half-educated boys leaving poor homes as the other kind.

There is another side to this question which the sister does not mention. While it is unfortunate that a boy who possesses the qualifications of a good farmer should be lured away by the seeming advantages of city life, it is no less so to waste time in making a poor farmer of the boy who has a natural talent for some other trade. Parents should be content to help their boys find the work they are best fitted to do, even if it requires them to leave home.

BATTLE CREEK.

V. I. M.

PASTRY.

Something in the form of pastry is nearly always acceptable as making variety in desserts; not necessarily pie, for tarts, tartlets and turnovers are good shapes for pastry to take.

Notwithstanding the fact that many scathing remarks have been made, and newspaper articles by the score have been written about the triangular slab of deadly pie, it is too much a national characteristic to be entirely tabooed simply because a few cranks aver that it causes disarrangement of the stomach and induces dyspepsia. There is pie and pie, and not everything which comes to the table sandwiched between two leathery crusts, can, with any sort of equanimity, assume to belong to the category of pie.

We are said to be a nation of pie-eaters. Emerson was extremely fond of that toothsome article and invariably ate it for breakfast. Crust compounded from lard, cottolene and butter, and filled with wholesome fruit or some of the wonderful creations which the science cook understands so well, furnishes good nourishment for the body.

Pastry has much to recommend it aside from economy, for it tides the busy housewife over Saturday, lessens her work on

Sunday, and comforts her on Monday when there is little time for work anywhere save at the wash-tub. The remainder of the week may be devoted to light puddings of which such an endless variety may be made.

English housekeepers are very friendly toward tarts, which are usually served on Sunday and at special meetings for the poor. To make a tart, fill a pudding dish with fruit—any kind desired—add sugar sufficient to sweeten, then cover with pastry and bake. Serve powdered sugar and cream with them when they become a dish suited even for epicures.

To make common tarts, roll puff paste rather thin, cut into fancy shapes, prick several times and bake in a quick oven. When cold put a spoonful of thick jam or jelly in the center and dust lightly with powdered sugar. They are very pretty cut into diamond shape with a jagged iron, then twist a narrow strip of the crust into the form of an O and put in each corner, filling with quince and raspberry jelly, the unique shape and different tinted jellies making a very pretty supper dish.

To make tartlets, line oblong, square, or heart-shaped pattypans with good pastry and bake. When cold fill them with jam, raspberry, blackberry or plum—some substitute a lemon filling. These are ever associated with the farm house kitchen, where the housewife knows so well, the various things which the little-yes and big folks too—like. Roll out pastry thin as for pies; with a big cutter make into rounds, on one side lay a large spoonful of anything desired. Mince makes most excellent turnovers, or apple sauce. Fold the other side over, press the edges well together and bake. Line pattypans with pastry, then fill with a mixture made from equal parts of seeded raisins, figs, citron, currants, prunes and dates well chopped and moistened with lemon juice and thick syrup made from granulated sugar. Cover with crust and bake for about ten minutes; sift powdered sugar over while hot.

The secret of success in making puff paste is to secure the greatest number of layers of butter and dough as the result of folding and rolling. One pound of butter to one pound of flour is the most, and three-quarters of a pound of butter to one pound of flour the least that can be used in puff paste with good results. I do not think that as much lard is used in making pastry as formerly, cottolene and butter being preferred. I particularly like the lard I buy, which contains more or less oleo stearine. Refiners claim that it gives lard a body, a small lump making a nice flaky crust sufficient for one pie. But after all done and said the shortening obtained from frying pork is about as near right for making good pie crust as anything. I prefer it to lard, butter or cottolene, and invariably use it when procurable.

EVANGELINE.

Stop! Women,

And Consider the All-Important Fact,



That in addressing Mrs. Pinkham you are confiding your private ills to a woman—a woman whose experience in treating woman's diseases is greater than that of any living physician—male or female.

You can talk freely to a woman when it is revolting to relate your private troubles to a man—besides, a man does not understand—simply because he is a man.

Many women suffer in silence and drift along from bad to worse, knowing full well that they ought to have immediate assistance, but a natural modesty impels them to shrink from exposing themselves to the questions and probably examinations of even their family physician. It is unnecessary. Without money or price you can consult a woman, whose knowledge from actual experience is greater than any local physician in the world. The following invitation is freely offered; accept it in the same spirit:

MRS. PINKHAM'S STANDING INVITATION.

Women suffering from any form of female weakness are invited to promptly communicate with Mrs. Pinkham at Lynn, Mass. All letters are received, opened, read and answered by women only. A woman can freely talk of her private illness to a woman; thus has been established the eternal confidence between Mrs. Pinkham and the women of America which has never been broken.

Out of the vast volume of experience which she has to draw from, it is more than possible that she has gained the very knowledge that will help your case. She asks nothing in return except your good-will, and her advice has relieved thousands. Surely any woman, rich or poor, is very foolish if she does not take advantage of this generous offer of assistance.—Lydia E. Pinkham Medicine Co., Lynn, Mass.

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O. C. L., Owosso, Mich.:—You had better consult some attorney personally, before whom you can lay all the facts.

FIXTURES IN A BARN WHICH PASS ON SALE.—H. A. C., Hubbardston, Mich.:—The fact that the rope belonging to hay fork was used for other purposes at times does not change our opinion as expressed in the issue of April 3d. The rope was intended for use with the fork. We are of the opinion that the apparatus is a part of the barn.

ADOPTED CHILDREN HEIRS OF ADOPTING PARENTS.—Subscriber, Grattan, Mich.:—Can a legally adopted child inherit from its own parents or grandparents? No will.—No. Statute of 1861, however, was declared unconstitutional by supreme court in 1889, so children adopted under that statute are still heirs of natural parents.

WORK ON HIGHWAY—TO BE UNDER SUPERVISION OF OVERSEER.—F. J. R., Byron, Mich.:—1. Can a taxpayer in a road district go on and work out his road tax before the tax has been assessed or an overseer appointed?—No. The overseer "shall see to the performance of highway labor within his district," and no one is liable for highway tax until it has been actually assessed. The overseer subsequently, if satisfied with the work done, might accept it and credit it on assessment. 2. Can the pathmaster elected at the coming township election compel them to work their road tax over again?—Yes.

CONTRACT—RENUNCIATION BEFORE PERFORMANCE IS DUE.—A. Subscriber, Rush-ton, Mich.:—A. accepts order for merchandise of B. B. accepts order from C. for piece of machinery, the completion of which depends on fulfillment of order by A. A. notifies B. two months before performance was due that he cannot fill order. Can C. sue A. for damages?—C., on above facts, can bring no suit against A., but has claim against B. in case of renunciation or non-performance. B. can sue A. on contract, and need not wait for time when performance is due before starting suit.

ACCEPTANCE OF INTEREST KEEPS MORTGAGE ALIVE—OUTLAW 15 YEARS AFTER LAST PAYMENT.—L. B., Tyrone, Mich.:—How long will a mortgage on real estate run before it will outlaw if the interest is paid every year?—A mortgage cannot outlaw before it becomes due if the interest is regularly paid. And a mortgage cannot be foreclosed, either at law or in equity, unless proceedings shall have been commenced within fifteen years from and after such mortgage shall become due and payable, or within fifteen years after the last payment was made on said mortgage. This applies to all mortgages which had not been due fifteen years prior to Aug. 30, 1879.

VENDOR CAN ONLY GIVE TITLE WHICH HE HAS—ADVERSE POSSESSION.—C. A. A., Al-bion, Mich.:—1. If there is a defect in the title to a certain piece of land and the property be probated or passes through an administrator's hands, does that give a clear title, and would a person be perfectly safe in buying it?—No one can give a better title than he himself has. An administrator can give no better title than the owner had at his death unless the title has been subsequently cleared. The mere fact that property had passed through the hands of an administrator would not destroy previous defects in it. 2. A. owns a piece of land. Previous to his death he deeds it to B. B. wishes to deed it to C., but upon examining the records C. finds no record of A. ever having a deed. How long must A. have held possession to have given him a title?—Fifteen years open, notorious, hostile, actual, visible and continued possession gives title by "adverse possession" in Michigan.

CHANGE IN STATUTE PERMITTING SPEARING OF FISH.—The legislature has passed an act making it lawful in the months of December, January, February and March in each year to take, catch, or kill through the ice by use of a spear, any or all kinds of fish, except brook trout, rainbow trout, German or brown trout, grayling, land-locked salmon and black bass, in any or all of the inland lakes and streams of this State, including Lake St. Clair and that part of the St. Clair River below the village of Algonac in St. Clair county, the channels through which said river empties into Lake St. Clair, and other channels and bayous comprising the waters of said lake. Provided, that all waters, lakes and streams in this State, except Maple River below its entrance into Gratiot county, which are now protected from spearing by any local act of the legislature shall be exempt from this act. The act is given immediate effect from March 26.

SURVIVORSHIP—HUSBAND AND WIFE JOINT TENANTS—TENANTS IN COMMON.—QUERIST, Oxford, Mich.:—When A. deeds property to B. and C., what relation to each other do B. and C. have? If either died, what would become of title?—B. and C., if husband and wife, would be joint tenants, unless it is otherwise specified. Dur-

ing the lives of both, neither has an absolute inheritable interest; neither can be said to hold an individual half; they take by entireties; and at the death of the wife the whole passes at once to the husband. Neither has such a separate interest that he or she could sell, incumber or devise, or which his or her heir could inherit. It is an entirety, in which both take the same and inseparable interest. Neither can affect the other's rights by a separate transfer. In case B. and C. are not husband and wife they are tenants in common. In case of the death of either the title is in the survivor and the estate of the deceased.

SCAB—SALE OF SHEEP INFECTED BY DAMAGES.—Subscriber, Vernon, Mich.:—A. and B. bought lambs which came through Chicago stock yards. Shipper ten days after sale advised B. to dip the lambs, for sheep coming through Chicago yards, he said, were liable to have scab. Lambs were dipped, but later the scab appeared and A. and B. have lost heavily. Is there a case for damages?—On the facts as stated in your several letters there is no case for damages. Shipper gave no warranty, nor made any representations, nor does it appear that he knew lambs had the scab at the time of sale, nor that they had been directly exposed to it. He merely said, "here are lambs for sale; they have come through Chicago yards." He took no unfair advantage, he withheld no special information. Lambs were open to inspection. A. and B. bought, and failed to take, for some days, what is deemed the usual and ordinary precaution in putting sheep on a farm which have been shipped in, viz., to dip them. The FARMER has always so advised, especially in case of Chicago shipments. Unless there are other facts which will charge with shipper with notice of disease in sheep, or negligence, we are of the opinion that A. and B. must accept their loss, and profit by experience.

The Markets.

WHEAT.

Fears of a European war, and weather in the northwest, and the probability that seeding in that section will be very late, coupled with reports of damage to winter wheat, have combined to push up values in the wheat market over 5c within the past week. Spot wheat is again close to the 90-cent line in this market, and when that point has been reached the result has always been a reaction. Perhaps the present advance has a better basis than former ones and may be maintained. We note one fact which shows the opinion of speculative parties in regard to future prices, and that is that July futures do not advance as rapidly, nor to the same extent that spot wheat does. It is evident they expect a softening of values with the advent of the new crop. Liverpool advanced 1d. on Thursday, and Berlin 1 1/4 marks.

The following table exhibits the daily closing sales of spot wheat in this market from March 20 to April 15 inclusive:

	No. 1	No. 2	No. 3
Mar. 30	White. 86	Red. 86	Red. 86
" 31	86 1/2	86 1/2	86 1/2
" 1	86 1/2	86 1/2	86 1/2
" 2	86 1/2	86 1/2	86 1/2
" 3	86 1/2	86 1/2	86 1/2
" 4	86 1/2	86 1/2	86 1/2
" 5	86 1/2	86 1/2	86 1/2
" 6	86 1/2	86 1/2	86 1/2
" 7	86 1/2	86 1/2	86 1/2
" 8	86 1/2	86 1/2	86 1/2
" 9	86 1/2	86 1/2	86 1/2
" 10	86 1/2	86 1/2	86 1/2
" 11	86 1/2	86 1/2	86 1/2
" 12	86 1/2	86 1/2	86 1/2
" 13	86 1/2	86 1/2	86 1/2
" 14	86 1/2	86 1/2	86 1/2
" 15	86 1/2	86 1/2	86 1/2

The following is a record of the closing prices on the various deals in futures each day during the past week:

	May	July
Friday	86 1/2	86 1/2
Saturday	86 1/2	86 1/2
Monday	86 1/2	86 1/2
Tuesday	86 1/2	86 1/2
Wednesday	86 1/2	86 1/2
Thursday	86 1/2	86 1/2

The visible supply on wheat on Saturday last, as compiled by the N. Y. Produce Exchange, was 37,706,000 bu., a decrease of 906,000 bu. over the amount reported the previous week.

Weather in the northwest this season is very unfavorable. Seeding will be very late.

"In April, 1895, the condition of winter wheat was identical with that of to-day. The visible supply was 79,480,000 bu. against 37,706,000 bu. to-day, almost half less. Stocks of wheat in Chicago then were 26,000,000 bu., against 10,000,000 bu. now, and of the then stock the major part was winter wheat.

According to the returns to the Daily Trade Bulletin and the Minneapolis Market Record, the aggregate supplies of flour and wheat at the points reporting in the United States and Canada on April 1 were equal to 74,310,900 bu., against 85,304,900 bu. on March 1 and 111,629,700 bu. on April 1, 1896. The decrease during March was equal to 10,994,000 bu. Stocks of flour decreased 190,700 bbls., and supplies of wheat decreased 10,140,400 bu. Stocks of flour are 383,500 bbls less than one year ago, and supplies of wheat are 35,593,100 bu. less. The aggregate supplies of breadstuffs in the United States, Canada, afloat for and in Europe on April 1 were equal to 139,010,900 bu., against 155,504,900 bu. on March 1 and 180,629,700 bu. on April 1, 1896. The decrease in the world's supply during March was equal to 16,494,000 bu., against a decrease of 17,992,800 bu. during February and 11,258,000 bu. during March, 1896. The aggregate supply in 41,618,800 bu. less than reported one year ago.

Beerbohm estimates the imports into the United Kingdom for the next five months at 68,800,000 bu., against 74,700,000 bu. in 1896, and 95,050,000 bu. in 1895.

Shipments of wheat from Argentina continue small, and at the present rate the totals for this season and last will soon show 1,000,000 qrs difference. Mr. Goodwin writes of a good demand from Brazil for wheat and flour, and mentions that corn was being gathered in good condition and that the surplus would likely be less than half of that from the last crop, which would probably mean about 2,500,000 qrs.

Beerbohm reports the shipments of flour and

wheat to European countries from August 1 to March 27 were 230,208,000 bu. against 212,368,000 bu. the previous year and 232,736,000 bu. for the corresponding time in 1895.

Special cable and telegraphic dispatches to Bradstreet's, covering the principal points of accumulation, indicate the following changes in available supplies last Saturday, as compared with the preceding Saturday: Wheat, United States and Canada, east Rockies, decrease 1,229,000 bu.; afloat for and in Europe, decrease, 1,000,000 bu. Total decrease world's available, 2,239,000 bu. Corn, United States and Canada, east Rockies, decrease 970,000 bu. Oats, United States and Canada, east Rockies, decrease 1,062,000 bu.

DAIRY PRODUCTS.

BUTTER.

The butter market shows general weakness, and we note a decline in values at all distributing points. In this market there is considerable weakness shown, and a decline is noted since a week ago. Quotations in this market range as follows: Creamery, 18@20c; fancy dairy, 15@16c; fair to good dairy, 12@14c; low grade, 6@10c. At Chicago the market is very dull, even reduced prices failing to put any life into the demand. Stocks are ample, and receipts increasing. Holders are making concessions, especially on medium and low grade stocks, to keep them moving. Quotations in that market on Thursday were as follows: Creameries—Extras, 17c; firsts, 15@16c; seconds, 13@14c. Dairies—Fancy, 15c; firsts, 13@14c; seconds, 9@10c; imitation creameries, firsts 13@14c; packing stock, fresh, 8@9c; roll butter, choice, 10c. The New York market shows a further decline, and 18c is now the outside price for the choicest creamery; even at the decline business is far from active. Dealers, however, hope that there will come a reaction, owing to an improvement in the demand as the result of the prevailing low prices. Exporters are not doing much, as the markets abroad appear to be in much the same condition as our own. The rapid extension of dairying in Great Britain and on the continent of Europe, as the result of the low prices ruling in other farm products, is rapidly lowering values in butter, no matter how choice the product. Really choice creamery is selling about as low in Liverpool at present as in New York. Quotations in the latter market on Thursday on new butter were as follows:

Eastern creamery, any...	17 1/2 @ 18
Eastern creamery, good to choice...	15 @ 17
State dairy, h. f. tubs, fancy, fresh...	17 @
State dairy, h. f. tubs, good to choice...	13 @ 16
Welch tubs, extras...	16 @ 16 1/2

WESTERN STOCK.

Creamery, Western, fancy...	18 @
Creamery, Western, choice...	16 1/2 @ 17
Creamery, Western, fair to good...	13 @ 16
Dairy, Western, firsts...	12 @ 13
" thirds to seconds...	8 @ 11
Western imitation creamery, choice...	15 @ 15 1/2
Western imitation creamery, fair to good...	11 @ 14
Factory, fresh, choice...	10 @ 12
Factory, fresh, fair to good...	8 @ 9

CHEESE.

The cheese market holds very steady at all points, although foreign advices are unfavorable. Liverpool reporting a decline of 1s. since a week ago. Quotations for the best full cream still range at 11@11 1/2c. Chicago also holds about steady, with a very quiet market. Offerings and demand are both limited. No new cheese has yet been received. Quotations in that market on Thursday were as follows: Full cream—Young Americas, 9 1/2@11c; twins, 8 1/2@10 1/2c; brick, full cream, 7@8 1/2c; Swiss, fair to choice, 8 1/2@9 1/2c; Limburger, good to choice, 5 1/2@6 1/2c. The New York market is fairly active, with quotations on old unchanged. Considerable arrivals of new are reported. Exporters are taking liberal amounts. Quotations on old stock in that market on Thursday were as follows:

New State, full cream, large, white, fancy	@ 12 1/2
Do do late made, prime...	11 1/2 @ 12
Do do good to choice...	11 1/2 @ 11 1/2
Do do colored, fancy...	@ 12 1/2
Do do do late made, prime...	11 1/2 @ 12
Do do do choice...	11 1/2 @ 11 1/2
Do do do fair to good...	9 @ 11
Do do small, fancy, white...	12 @ 12 1/2
Do do colored, fancy...	@ 12 1/2
Do do good to choice...	11 1/2 @ 11 1/2
Do do common to fair...	9 @ 11
State, part skims, winter made, good to poor	7 @ 8
Do " " common to	@ 8
Do full " winter made...	5 @ 6
	2 1/2 @ 3

NEW CHEESE.

Full cream, large choice...	10 1/2 @ 10 1/2
" " good to prime...	10 @ 10 1/2
" " small size...	10 @ 10 1/2
Part skims, good to prime...	7 @ 8
Common to fair...	5 @ 6
Full skims...	2 1/2 @ 3 1/2

At Liverpool on Thursday quotations on finest American cheese were 56s. 6d. per cwt for choice American, both white and colored. These figures show a decline of 1s. since a week ago.

DETROIT PRODUCE MARKET.

DETROIT, April 15, 1897.

FLOUR.—Quotations on jobbers' lots in barrels are as follows:

Straights	\$4 25 @
Clears	4 00
Patent Michigan	4 75 @
Rye	2 75
Low grade	3 50
Buckwheat	3 00

CORN.—No. 2, 25c; No. 3, 24 1/2c; No. 2 yellow, 26c; No. 3 yellow, 25 1/2c. The visible supply of corn on Saturday last was 24,967,000 bu., an increase of 351,000 bu. from the previous week.

OATS.—Quoted as follows: No. 2 white, 21 1/2c; light mixed, 21c; No. 3 white, 20 1/2c. The visible supply of oats on Saturday last was 13,287,000 bu., a decrease of 322,000 bu. since the previous Saturday.

RYE.—Quoted at 34c per bushel for No. 2. No. 3 sells at 32 1/2c. The visible supply of rye on Saturday last was 3,642,000 bu., a decrease of 10,000 bu. since the previous Saturday.

BARLEY.—Quoted at 55@56c per 100 lbs. The visible supply on Saturday last was 2,705,000 bu. a decrease of 107,000 bu. since the previous Saturday.

CLOVERSEED.—Prime spot, \$4 30 per bu.; No. 2 quoted at \$4 00 @ 4 20. Season about over. Market very dull.

TIMOTHY SEED.—Quoted at \$1 25 per bu. FEED.—Bran, \$11; coarse middlings, \$11; fine middlings, \$12 00; corn and oat chaff, \$10; cracked corn, \$11; coarse cornmeal, \$11. These prices are for car load lots; small lots at \$1 per ton higher.

BUTTER.—Market dull. Quoted at 15@16c for best dairy; good, 13@14c; common to fair, 6@10c; creamery, 12@20c.

CHEESE.—New Michigan full cream, 11@11 1/2c. BGGs—Strictly fresh selling at 9c per doz.

POTATOES.—Quoted at 20@25c per bu. At Chicago quotations on Thursday were as follows:

Early Rose, 10@20c; Hebrons, 18@20c; Burbanks, 10@20c per bu.; Michigan 15@18c. BEANS.—Quoted at 60@65c per bu. for hand picked in car lots; unpicked, 40@55c per bu. At New York quotations on Thursday were as follows: Marrow per bu., 90c@1 10; medium, 70@85c; pea 70@85c; red kidney, 1 1/2@1 3/4; white kidney, choice, 1 05@1 10. Market dull and weak.

APPLES.—Quoted at \$1 50 per bbl for common; good to choice, \$1 75 @ 2.

DRIED APPLES.—Sun-dried, 2@2 1/2c; evaporated, 4 1/2@5c per lb.

MAPLE SYRUP.—Quoted at 65@70c per gallon for pure.

MAPLE SUGAR.—Quoted at 7@9c per lb.

HONEY.—Quoted at 10c in sections, for white and 8@9c for dark comb; extracted, 5@6 per lb. At Chicago it is quoted as follows: White clover choice, 11@12 1/2c; imperfect comb, 7@9.

BEEF.—Prime, 23@24c per lb.

HIDES.—Green, No. 1, 6c; No. 2, 5c; cured, No. 1, 7c; No. 2, 6c; calf, No. 1, green, 8c; cured, No. 1, 8c; No. 2, green, 7c; No. 2 cured, calf, 7c.

POULTRY.—Dressed chickens, 9@9 1/2c; dressed turkeys, 12@13c; dressed ducks, 12@12 1/2c; geese, 8@9c. Live quoted 1@2c below the above figures. Quotations at Chicago are: Live—Turkeys, 8@9c; chickens, old and young, 7 1/2@8c; roosters, 6 1/2@7c; ducks, 9@10c; geese, 5@6 per doz.

DRESSED VEAL.—Quoted at 6@6 1/2c for ordinary to good carcasses, and 7@7 1/2c for fancy.

PROVISIONS.—Quotations are as follows:

Mess pork	9 00 @
Short mess	10 50
Short clear	9 00
Lard in tierces, 5 lb, compound	4 1/2
Pure lard, 5 lb	5 1/2
Hams, 5 lb	8 1/2 @ 10 1/2
Shoulders, 5 lb	7 1/2
Choice bacon, 5 lb	7 1/2
Extra mess beef, new 5 lb	7 00
Plate beef	7 75
Tallow 5 lb	3

OILS.—Raw linseed, 33c; boiled linseed, 35c per gal. less 1c for cash in 10 days; extra lard oil, 42c; No. 1 lard oil, 33c; water white kerosene 8 1/2c; fancy grade kerosene, 9 1/2@10 1/2c; deodorized gasoline, 8 1/2c per gal.; turpentine, 35c per gal., in barrel lots, less 1c for cash in 10 days. Less quantities, 40c per gal.

COFFEE.—City prices are: Rio, roasting, 15c; fair, 16c; good, 18@19c; prime, 20c; choice, 22@23c; fancy, 25c; Maracaibo, roasted, 25c; Santos, roasted, 24c; Mocha, roasted, 29c; Java 32c.

HARDWARE.—Axes, single bit, broze, \$5 00; double bit, broze, \$5 50; single bit, solid steel, \$6 double bit, solid steel, \$2 50 per doz; bar iron, \$1 40 rates; carriage bolts, 75c per cent new list; tire bolts, 70 and 10 per cent off new list; painted barbed wire, \$1 65; galvanized barbed wire, \$1 95 per cwt; single and double strength glass, 70 and 10 per cent off list; No. 24 sheet iron, \$2 50 rates per cwt; galvanized, 75 and 10 per cent off list; No. 1 annealed wire, \$1 40 rates. Wire nails, \$1 60; steel cut nails, \$1 60 per cwt, new card.

BALED HAY.—Best timothy in car lots, \$10 per ton; rye straw, \$5 25; wheat straw, \$4 40 @ 50; oat straw, \$4 40 @ 50.

LOOSE HAY.

The following is a report of the sales of loose hay at the Western Hay Scales for the week ending noon, April 15, with the price per ton on each load: Friday—12 loads: Two at \$12; five at \$9; two at \$8; one each at \$10, \$9.50 and \$7.50.

Saturday—Rain, no sales.

Monday—14 loads: Five at \$10; five at \$9; one each at \$8.50, \$8, \$7.50 and \$6.

Tuesday—Rain, no sales.

Wednesday—9 loads: Three at \$10; two at \$9; one each at \$11.50, \$11, \$10.50 and \$10.

Thursday—3 loads: All at \$9.

DETROIT LIVE STOCK MARKET.

Michigan Central Stock Yards.

DETROIT, Mich., April 15, 1897.

CATTLE.

Thursday's receipts of cattle numbered 800 head, through 177; on sale 623, as compared to 599 one week ago. Market opened active and all changed hands early at strong last week's prices. We quote good shipping steers at 1,200 to 1,500 lbs at \$4 30 @ 4 50; good butchers steers at 1,000 to 1,500 at \$4 40 @ 4 50; 850 @ 950 at \$3 65 @ 3 95; steers and heifers, \$3 50 @ 3 85; bulls, light to good butchers, \$3 65 @ 3 85; mixed butchers and fat cows, \$3 30 @ 3 50; common to good, \$2 35 @ 2 95; canners, \$2 25 @ 2 50; feeders and stockers, \$2 75 @ 3 75. Veal calves, receipts were 229, active at \$4 25 per hundred lbs, mostly, \$4 50 @ 4 75. Milch cows and springers in fair demand at \$25 to \$45 each, mostly, \$22 @ 40. Vilest sold Fitzpatrick 6 good butchers steers at 79c at \$3 90, and 2 mixed at 85c at \$3 80. 1 weeks sold Sullivan 20 steers at 1,017 at \$3 95, and 7 feeders at 86c at \$3 65. White sold Cross 4 steers and heifers at 700 at \$3 55. Bartholomew sold Sullivan 2 good shipping steers at 1,525 at \$4 50, and 10 feeders at 84c at \$3 70. Wm Dennis sold Fitzpatrick 6 mixed butchers at 1,050 at \$2 90. Spicer & Merritt sold Schleicher 5 light butchers at 574 at \$2 85, and 4 mixed butchers to Cross at 1,007 at \$2 65. H H Howe sold Loosemore 3 common butchers cows at 993 at \$3 50; 5 mixed butchers at 1,190 at \$3; 14 good butchers steers to Cross at 972 at \$4, and a coarse steer weighing 1,000 at \$3 50. Spicer & Merritt sold Cook & Fry 2 fat cows at 975 at \$3; 2 heifers at 860 at \$3 50, and a cow weighing 990 at \$3. Carman sold Schleicher 3 common cows at 753 at \$2 25, and 7 mixed butchers to Caplis & Co at 700 at \$2 25. Estep sold Russell a fat cow weighing 1,270 at \$3 75, and 4 good butchers steers at 1,057 at \$4, also 2 fat cows to Kamman at 1,185 at \$3. Strubel & Co sold Cross 10 steers at 815 at \$3 75, and 5 fat cows at 956 at \$3 40. Spicer & Merritt sold Sullivan 2 good steers at 1,300 at \$4 40. York sold Sullivan 3 steers at 973 at \$3 85; a good sausage bull to Kamman weighing 1,020 at \$2 85, and 12 mixed butchers to Marx at 86c at \$3. P O'Connor sold Caplis & Co 12 mixed butchers at 872 at \$3. Ted Wilson sold Cross 8 steers at 722 at \$3 70, and 4 fat butchers cows at 1,027 at \$2 95. Roe & Holmes sold Robinson 2 fat cows at 1,180 at \$3; 1 do weighing 1,110 at \$3 50; 12 good butchers steers at 942 at \$4; 22 steers and heifers at 781 at \$3 75; 5 fat cows at 980 at \$3 20; 2 at 910 at \$2 75; 2 heifers at 585 at \$3; to Sullivan 8 good butchers steers at 1,063 at \$4 25; to Mich Beef Co 33 steers at 798 at \$3 65, and 23 at 1,110 at \$4, also 4 steers at \$22 at \$4; to Cross 3 heifers at 615 at \$3 25; 3 steers at 633 at \$3 60, and 10 stockers at 573 at \$3 40. Baker sold Caplis & Co 2 common cows at 915 at \$2 25; a good sausage bull weighing 1,220 at \$

Adams sold Fitzpatrick 3 mixed butchers av 730 at \$2.75.
Lamoreaux & Y sold Caplis & Co 5 mixed butchers av 954 at \$3.20.
Hubert sold Fitzpatrick 2 common butchers cows av 830 at \$2.50; 2 fat do av 1,000 at \$3, and 5 mixed butchers av 864 at \$3.30.
Osmus sold Magee 5 canners av 864 at \$2, and 2 common butchers cows av 1,210 at \$2.50.
Bartholomew sold Mich Beef Co 7 mixed butchers av 1,071 at \$2.70.
O Nichols sold Reagan 3 do av 1,060 at \$2.80; 3 steers to Cross av 1,050 at \$4, and 8 heifers av 822 at \$3.70.
G J Smith sold Caplis & Co 8 good mixed butchers av 800 at \$3.50 and 3 cows av 1,110 at \$3; also 25 steers to Cross av 930 at \$3.85.
McLaren sold Mich Beef Co 7 steers av 1,221 at \$4.40 and a good sausage bull weighing 1,600 at \$3.
Bresnahan & H sold Magee 14 fair butchers cows av 1,011 at \$2.70.
Nott sold Fitzpatrick 6 mixed butchers av 1,025 at \$2.90; a bull to Sullivan weighing 1,250 at \$3 and 6 steers av 906 at \$3.90.
Steele sold Mason 4 mixed butchers av 635 at \$2.
Burden sold Loosemore 9 mixed butchers av 904 at \$3.05.
Ackley sold Caplis & Co 5 mixed butchers av 1,004 at \$3 and 2 cows av 1,230 at \$2.70; to Sullivan 14 steers av 1,033 at \$4.
Clark & B sold Mich Beef Co 3 fat cows av 1,013 at \$3; a fat steer weighing 1,110 at \$4.20 and 2 mixed butchers av 830 at \$2.60.
Thorburn sold Cross 15 steers av 852 at \$3.70 and 3 cows av 1,046 at \$2.65.

SHEEP AND LAMBS.

Thursday's receipts of sheep and lambs numbered 1,101 head; one week ago, 1,099. The quality was mostly poor; very few good on sale. The few good sheep and lambs on hand changed hands at about last week's prices. Common very dull; not wanted; several lots held over. Range of prices, wool lambs, \$5.25 to \$5.75; clipped \$4.50 to \$5; best mixed lots, (wool) \$4.50 to \$5.15; fair to good mixed butchers, \$3.40 to \$4; spring lambs, 8 to 10c per lb.
Clark & Belhimer sold Hammond S. & Co 32 mixed av 73 at \$4.60.
Spicer & Merritt sold Mich Beef Co 42 mixed (wool) av 85 at \$4.75; 21 lambs av 66 at \$5, and 20 av 78 at \$5.50.
Pinkney sold same 16 wool sheep av 84 at \$4.50, and 65 do lambs av 66 at \$5.50.
Joe McMullen sold same 77 clipped lambs av 79 at \$5.
Roe & Holmes sold same 73 mixed (wool) av 90 at \$5.15.
Baker sold Hauser 14 lambs av 56 at \$5.
Dennis sold Fitzpatrick 74 mixed av 63 at \$3.75.
Howe sold Mich Beef Co 40 mixed av 73 at \$4.50.
Bartholomew sold same 20 lambs av 82 at \$5.75.

HOGS.

Receipts of hogs Thursday numbered 2,780, one week ago 3,481, quality only fair. Market active and strong 5c higher than last Friday's closing. Range \$3.90 to \$4.05. Mostly \$3.95 to \$4.05. Stags 1/2 off. Roughs \$3.50 to \$3.65. Pigs \$3.80 to \$4.1.
McLaren sold R S Webb 30 av 179 at \$4.
Coats sold same 83 av 171 at \$4 and 10 pigs to Keener av 86 at \$4.
Bartlett sold same 10 av 216 at \$4.05.
H H Howe sold same 25 av 189 at \$4.02 1/2.
Weeks sold same 78 av 186 at \$4.05.
Nichols sold same 31 av 190 at \$4.
Simmons sold same 66 av 175 at \$4.05.
Davies sold Hammond S. & Co 81 av 174 at \$4.05.
Adams sold same 52 av 189 at \$4.05.
Strubel & Co sold same 37 av 190 at \$4.
Vliet sold same 40 av 197 at \$4.02 1/2.
Ackley sold Farnum 12 av 204 at \$4.
Knapp sold Baker, Webb & Co 102 av 198 at \$4.
Hubert sold same 19 av 169 at \$4.
Glenn sold same 54 av 206 at \$4.
Tufel sold same 102 av 216 at \$4.
Nott sold Sullivan 54 av 173 at \$4.05.
Lamoreaux & Y sold same 39 av 165 at \$4.05.
Ford sold same 12 av 183 at \$4.02 1/2.
Burden sold Parker, Webb & Co 42 av 219 at \$4.05.
Joe McMullen sold Hammond S. & Co 70 av 194 at \$4.05.
White sold same 87 av 195 at \$4.05, and 39 av 156 at \$4.05.
Wilson sold same 138 av 180 at \$4.05.
Roe & Holmes sold Parker, Webb & Co 35 av 210; 24 av 180; 23 av 187; 34 av 221; 32 av 180 at \$3.95, and 58 av 171 at \$4.
Randfield sold same 84 av 184 at \$4.
Shook sold R S Webb 73 av 192 at \$4.
Thorburn sold Sullivan 16 av 150 at \$4.05.
J Smith sold same 18 av 172 at \$4.05.
Gifford sold same 20 av 206 at \$4.
Cornwall sold same 82 av 181 at \$3.95.
Pinkney sold same 32 av 203 at \$4.05.
Spicer & Merritt sold same 11 av 183 at \$4.05.
Stoll & Co sold Parker, Webb & Co 33 av 229 at \$4.
Dennis sold same 111 av 206 at \$4.
Spicer & Merritt sold same 33 av 211; 93 av 192; 40 av 202, and 85 av 198 at \$4.
Kelsey sold same 42 av 200 at \$4.
Clark & Belhimer sold Hammond S. & Co 67 av 186 at \$4.05.
Carman sold same 49 av 183 at \$4.
Estep sold same 45 av 178 at \$4.05.
Baker sold same 68 av 177 at \$4.05.

OUR BUFFALO LETTER.

EAST BUFFALO, April 15, 1897.

CATTLE.—Receipts of cattle on Monday last were 4,796, as compared with 6,050 for the same day the previous week; and shipments were 4,048, as compared with 4,810 for the same day the previous week. The market has held quite steady this week, but shows some changes in values since our last report. Prime shipping and export steers have held steady; good to choice show some improvement; butchers' steers are strong at slightly higher values for good to choice handy weights, good heifers and fat cows, while light, thin and undesirable grades have declined. Stockers and feeders are quiet and unchanged, as are bulls. Oxen are firm, and good, fat young ones, fit for export, have advanced. Veal calves steady and unchanged, and the same might be said of milch cows. Quotations at the close on Wednesday were as follows: Export and shipping steers.—Prime to extra choice steers, 1,450 to 1,600 lbs., \$5.00 to \$5.10; do, 1,300 to 1,400 lbs., \$4.75 to \$4.90; good to choice fat steers, 1,300 to 1,400 lbs., \$4.85 to \$5.10; good choice fat steers, 1,100 to 1,300 lbs., \$4.45 to \$4.60; coarse and rough fat steers, 1,100 to 1,450 lbs., \$3.65 to \$4.15. Butchers native cattle.—Fat smooth dry fed steers, 1,050 to 1,150 lbs., \$4.15 to \$4.50; fat smooth dry fed light steers, 900 to 1,000 lbs., \$3.85 to \$4.00; green steers thin to half fattened, 1,000 to 1,400 lbs., \$3.50 to \$3.80; fair to good steers, 900 to 1,000 lbs., \$3.25 to \$3.75; choice smooth fat heifers, \$3.75 to \$4.10; fair to good fat heifers, \$3.30 to \$3.55; light thin half fat heifers, \$2.75 to \$3.25; fair to good mixed butchers stock, fat and smooth, \$2.85 to \$3.50; mixed lots, fair quality fat cows and heifers, \$3.40 to \$3.25; good smooth well fattened butchers cows \$3.25 to \$3.50; fair to good butchers cows, \$3.50 to \$3.15; common old cows, \$3.00 to \$2.40. Stockers, feeders, bulls and oxen.—Feeding steers, good style, weight and quality, \$3.65 to \$3.85; fair to good quality stockers, 650 to 750 lbs., \$3.50 to \$3.60; light, thin and only fair stock steers, \$3.25 to \$3.50; light stock heifers and yearlings, \$2.75 to \$3.50; export weight bulls, fat and smooth, \$3.60 to \$3.75; good fat smooth butchers bulls, \$3.35 to \$3.60; fair to good sausage bulls, \$2.85 to \$3.25; thin old, common bulls, \$2.25 to \$2.65; stock bulls, \$2.50 to \$3.00; fat smooth young oxen, to fit for exports, \$4.00 to \$4.50; fair to fairly good partly fattened

young oxen, \$3.25 to \$3.55; old, common and poor oxen, \$2.25 to \$3. Veal calves.—Common to fair, \$3.00 to \$4.00; good to choice, \$4.25 to \$4.50; prime to extra, \$4.75 to \$5.00. Milch cows.—Strictly fancy, \$3.00 to \$4.40; good to choice, \$2.80 to \$3.40; poor to fair, \$1.80 to \$2.50; fancy springers, \$3.30 to \$4.20; fair to good, \$1.80 to \$3.00; common milkers and springers, \$1.40 to \$1.60. Thursday the market was quiet but firm, with light offerings.

SHEEP AND LAMBS.—Receipts Monday were 18,000 as compared with 15,000 the previous Monday; shipments were 11,800 as compared with 10,800 same day the previous week. The market is slow and generally lower on lambs, both wool and clipped; sheep have also declined a little on some grades, but prime handy weights have held steady. Wether sheep, fit for export, have advanced. While the market does not look so strong as a week ago, prices are at a high range. Extra heavy sheep are very dull. The market closed quiet on Wednesday with a number unsold. Quotations at the close on Wednesday were as follows: Native wool sheep.—Choice to extra wethers, \$5.25 to \$5.40; mixed sheep, choice to prime, \$4.75 to \$5.00; do., fair to good, \$4.25 to \$4.60; do., common to fair, \$4.00 to \$4.25; cull sheep, common to good, \$3.00 to \$3.75; heavy export sheep, mixed ewes and wethers, \$4.65 to \$4.90; selected, prime export wethers, \$5.10 to \$5.40; fair to choice native export ewes, \$4.75 to \$5.00; bucks, common to good, \$2.50 to \$2.75; choice and export, \$3.25 to \$3.50. Clipped sheep.—Prime to fancy wethers and yearlings, \$4.40 to \$4.65; good to choice handy sheep, \$4.00 to \$4.25; common to fair, \$3.35 to \$3.90; culls and common, \$2.50 to \$3.25. Native lambs.—Extra to prime heavy wool, \$5.25 to \$5.40; good to choice, \$5.75 to \$6.15; common to fair, \$4.55 to \$5.00; culls, common to good, \$3.75 to \$4.75; yearlings, fair to extra, \$4.85 to \$5.50; Clipped lambs.—Fancy handy, 85 to 90 lbs., \$5.15 to \$5.50; good to choice, 75 to 85 lbs., \$5.00 to \$5.15; fair to good, 65 to 70 lbs., \$4.75 to \$4.90; culls, common to good, \$3.00 to \$4.50. Thursday the market ruled steady to firm, with Wednesday's closing prices fully maintained. All offered were sold.

HOGS.—Receipts of hogs on Monday last were 22,500, as compared with 22,980 for the same day the previous week; and shipments were 17,640 as compared with 19,440 for the same day the previous week. As compared with a week ago values were about 5c higher at the close on Wednesday, but 5c lower than early in the day. All grades show an advance, with choice pigs getting more than other grades. Quotations at the close on Wednesday were as follows: Good to choice light medium yorkers, 160 to 180 lbs., \$4.25; good to choice pigs and light yorkers, 135 to 150 lbs., \$4.25; mixed packing grades, 185 to 200 lbs., \$4.25; fair to best medium weights, 210 to 250 lbs., \$4.25; good to prime heavy hogs of 370 to 300 lbs., quotable, \$4.20; rough, common to good, \$3.65 to \$3.85; stags, rough to good, \$2.75 to \$3.00; pigs, light, 100 to 120 lbs., sold to prime corn fed lots, \$4.25 to \$4.30; pigs, common, thin, skippy, on Thursday, \$4.10 to \$4.15. Market firm on Thursday, with porkers selling up to \$5.30, an advance of 5c. Other grades sold at Wednesday's prices.

CHICAGO.

UNION STOCK YARDS, April 15, 1897.

CATTLE.—The receipts for last week were 41,987 against 45,736 for the previous week, and 43,026 for the corresponding week in 1896. Up to and including Wednesday of this week the receipts have been 28,403, as compared with 31,871 for the same days last week. The lighter receipts this week have kept values steady, and in the case of prime steer cattle, prices are a little higher than a week ago, owing to scarcity. Considering that it is the lute season, when the market always shows weakness, the situation is promising for holders of good cattle. Unfinished and thin steers, poor cows, and such stuff, showed some symptoms of weakness. On Wednesday extra prime steers sold at \$5.20 to \$5.40; choice, \$5.05 to \$5.15; fair to good, \$4.20 to \$4.40; common to fair, \$3.25 to \$3.40; heifers, fair to choice, \$2.75 to \$3.00; cows, common to choice, \$2.25 to \$2.45; bulls, \$2.50 to \$3.50; no stockers or feeders on sale. Veal calves steady at a range of \$3.75 to \$5.15 per hundred. On Thursday receipts were 7,500; market steady to higher, the advance being on choice handy weight butchers' steers. Other grades unchanged.

SHEEP AND LAMBS.—Receipts for the past week were 52,221 as compared with 68,145 the previous week, and 61,421 for the corresponding week in 1896. Up to and including Wednesday of this week receipts have been 42,045, as compared with 31,271 for the same days last week, an increase of 10,774 head. The heavy receipts have had a depressing effect upon values, and we note a decline of 10c from the high prices prevailing at the opening of the week, but values are still higher than a week ago. On Wednesday the bulk of the trading was in clipped Texans; light and common sold at \$4.40; the best at \$4.70 to \$4.75; prime clipped western sheep and yearlings, \$4.80 to \$4.90; in fleece the above would have been \$5.20 to \$5.25. A few prime Colorado lambs sold at \$6.10, but about \$5.90 was the price. Clipped lambs sold at \$1.80; a few prime native lambs in fleece sold at \$5.25 to \$5.65. Receipts on Thursday were 11,000. Market steady to strong at Wednesday's prices.

HOGS.—The receipts for last week were 103,922 against 128,698 for the previous week, and 193,810 for the corresponding week in 1896. Up to and including Wednesday of this week, receipts have been 60,138, as compared with 61,777 for the same days last week, showing but little difference. The week opened with a firm market, and values higher than at time of last report. By Wednesday, however, the market weakened, and prices declined 7 1/2 @ 10c per hundred. At the close on Wednesday porkers and common sold at \$3.50 to \$3.60; prime heavy packers and good mixed, \$4.40 to \$4.65; prime medium and butcher weights, \$4.05 to \$4.75; prime light, \$4.05 to \$4.10. Market closed dull with 5,000 unsold. On Thursday fresh receipts were 22,000; market active and higher than at Wednesday's close. Light sold at \$3.90 to \$4.10; mixed, \$3.95 to \$4.12 1/2; heavy, \$3.70 to \$4.12 1/2; rough, \$3.70 to \$3.80.

UNFORTUNATE CONDITION IN ELGIN DISTRICT.—The contract prices for milk in the Elgin district by the condensers were promulgated on Thursday, March 18, and at the same time it was made known that a large number of dairies that had heretofore been delivering milk to the condensers would not be taken in. The farmers, therefore, in the immediate vicinity of Elgin who are equipped for the dairy business and nothing else are many of them casting about to find some means of disposing of their milk product at a profit. For the past ten years until within the last two or three the creameries in the immediate vicinity of Elgin have been practically wiped out of existence by reason of the high prices paid by the condensing factory for the product of the dairy farmers. The making of butter alone could not bring as good returns to the farmers as the price paid by the condenser. The result is that whereas within twelve miles of Elgin twelve years ago there were probably twenty-five creameries handling from 5,000 to 10,000 lbs. of milk daily there are only a few that have maintained their existence during that time. We have had a number of inquiries from dairy farmers as to

whether a creamery would be profitable in the immediate vicinity of Elgin, which shows that there is a surplus of milk now that so large an amount has been shut out of the condensers. What the outcome will be is a very uncertain problem. Some of the larger dairymen have expressed themselves as ready to go out of the business with the present outlook for prices for dairy products.—*Elgin Daily Report.*

GRANT'S ACHIEVEMENT AS A PEACEMAKER.

The honors and attentions showered upon General Grant during his tour of the world are, perhaps, unequalled in the history of kindly hospitality. He was received everywhere as the greatest soldier of his time and as the foremost living American. Hon. John Russell Young, who accompanied General Grant throughout the famous journey, graphically recalls, in the *May Ladies' Home Journal*, its conspicuous incidents: the receptions, dinners, fetes, balls, etc., given in honor of the illustrious American. It is said that Mr. Young brings to light a fact that has received but passing attention: that General Grant was instrumental in arranging the terms of a treaty of peace between China and Japan, which prevented an outbreak of war between those nations.

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Lye.	East via Windsor.	Arr.
7:45 am	Buffalo, New York and Boston	9:30 pm
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Stroms, April 3, 1897.

G. D.

The cultivation of the mushroom requires a good deal of attention, and is attended with much uncertainty. You will be sure to meet with disappointment at first, until you master the details of the business. The first thing is to prepare a suitable bed for them to grow in. This should be in a well drained but damp place, where it will be little affected by the sun. Or you can use boxes eight or ten inches deep, which can be kept in a cellar or other cool place. Caves and cellars are really best adapted for mushroom growing because they are cool, rather damp, and an even temperature can be maintained. Whichever you choose, see that the conditions named are observed as closely as possible. Having decided upon the point as to where you will grow the crop, get a good supply of fresh horse manure, using only the finer portions and discarding all the straw or litter. Mix this with fine fresh loam, using one part of loam to two of the manure. Turn this every day to keep it from burning until the heat drops to 80 or 85 degrees. You must ascertain this with a thermometer. Now prepare your bed or boxes with this mixture. A good way is to make a large box about four feet wide and as long as you want, and fill it until the soil is about eight inches deep, packing it down firmly as you fill it in. Now, if it registers about 85 degrees, it is ready for the mushroom spawn, as the seed is called. Make holes two to three inches deep, and twelve inches apart each way. Into these drop a piece of the spawn about as large as a hen's egg, cover it up, firming the earth over it with the spade. Follow this method until the bed is all planted, then firm the bed so its surface will be smooth and level all over. In eight to ten days the spawn should have started; then have some moist, fine loam, and cover the bed with it to a depth of two inches, smoothing it with the back of the spade. Before you put on the loam, examine the spawn to see if it has started. You will know this by seeing white threads spreading through the bed around the pieces of spawn. If none have started, then it is safe to conclude that piece of spawn will not germinate, and it should be thrown out and replaced with a fresh piece. Keep the box shaded from the sun, and if the spawn is good the young mushrooms should begin to appear in from six to eight weeks. If the bed should become quite dry, water the surface with lukewarm water, using a fine rose watering pot.

If you propose to use a cellar, put up a range of shelves, and after filling a number of small boxes with the manure and mould, place them on these shelves. Follow the instructions given above as to planting the spawn, etc.

Mushroom spawn is simply flat square pieces, called bricks, of a mixture of loam and manure in which spawn has been put and grown until it fills the whole piece with its spores or threads. It is then dried, and can be shipped any distance. There are two sorts, the English and French. The former costs about 15 cents per pound, or eight to ten pounds for a dollar, and the latter over double as much. It is for sale by all large seed houses.

When once the mushrooms begin to yield they should continue to do so for two or three months. The great difficulty will be found in giving them a cool, dark, moist place, and keeping the temperature even at all times.

As to Red Cob Ensilage corn, it should be grown the same as any other corn. What is wanted is just as heavy a yield of both ears and stalks as possible. Cut while the grain is soft, and put into the silo as quickly as possible.

OYSTER-SHELL BARK LOUSE.

Prof. L. R. Taft, Michigan Experiment Station.

DEAR SIR:—Enclosed please find some bark off an apple tree in my orchard. Tell us through the FARMER what it is. Anything you want to know about it I will answer. Is it anything that is a damage to the orchard, or that will damage neighboring orchards?

Cass City, Mich.

Michigan Agricultural College Experiment Station, Horticultural Department.

DEAR SIR:—Your letter, enclosing specimens of insects from your fruit trees, is at hand.

They are the oyster-shell bark louse, an insect which, if it becomes very numerous, will greatly injure, if it does not kill, your trees. The best remedy is kerosene emulsion. It may be used as strong as one part of kerosene to eight parts of water, while the leaves are off, but during the summer it should not be applied stronger than one part of kerosene to fifteen parts of water. Take one gallon of kerosene and one gallon of soft soap, (or two gallons of sour milk), and thoroughly churn together so that they will form a creamy mass. Before using dilute with water as above.

Scrub the trunks and larger branches, and spray the tops of the trees. If the scales are very numerous it will be a good thing to cut back the ends of the branches; this will make it easier to spray the trees, and secure a stronger growth next year.

L. R. TAFT.

For the Michigan Farmer.

FRUIT NOTES.

The word "hill" was rather unfortunately chosen to designate a plant in a row. It probably was first suggested by the soil being drawn up in a little mound or hill around certain cultivated plants, and the name was then attached to the plant itself. It will do well enough in the case of potatoes or corn, but the single strawberry plant might better have no name at all than be set above the surface level in a "hill," as the term suggests. And yet plants are sometimes set in that way. The new roots form near the top, and in this case will be in a soil easily affected by drouth. We do not see any great advantage in making the row for plants lower than the natural level, though some advocate this. The plants are easier to cover with mulch, but are too liable to be covered up when the cultivator is used.

In examining a plot of strawberries where the white grub did considerable damage last year, we could not fail to notice how one variety among six had received little injury. In the rows of Bubach, Cumberland, Timbrell, Haverland and Beverly more than one-third of the plants were missing, and those which were spared had, with few exceptions, set only a small number of young plants, while the Michael's Early had escaped with not enough missing plants to thin out the rows as they should be. It is hardly to be supposed that the root of this plant is less agreeable to the grub than the others. More likely the difference is owing to the prolificacy of the plant. It throws out a network of runners which are quick to take root and grow. If half the young plants were destroyed there would be enough for fruiting purposes.

The winter pear seems to be an uncertainty just at present. Undoubtedly a fruit that would keep like the apple would be a great acquisition, but there are experienced orchardists who have little faith in the varieties we now have. "They do not compare with the fall varieties," says one who has given the matter considerable attention. "We must keep them in cold storage, anyhow, so might better raise fall varieties for this purpose and have something worth keeping." He is grafting his winter pears into fall fruit.

It is estimated that the Elberta peach is now being planted more than any other variety. It is certainly an excellent peach, but it is doubtful if any market will be satisfied with a single variety, no matter how good. The Crawford may be suggested as an exception, but it is hardly true when it is considered that a large number of varieties go on the market under that name. On account of this large setting of Elbertas, fruit-growers are now turning to other varieties.

Girdling trees for the purpose of getting early fruit is a practice followed by some peach growers. Only a part of the tree is girdled, unless it is to be destroyed. A wire is twisted around a limb tight enough to cut off the sap. This is done in the middle of the summer. This will cause a formation of an unusual number of buds, and the next year the fruit will ripen from one to two weeks before the regular time. The fruit will be better in color than when ripened naturally. The branch is then cut away, as it is worthless, but new shoots will be thrown out below the place where girdled and restore the tree. By operating on a part of the tree each year the process may be continued without destroying the tree. Some vigorous growers might even be benefited by such a course of pruning. We doubt, however, if such a practice will be found very good for an orchard. One of the established laws of pruning is that as little wood should be removed as possible, but that objectionable branches should be prevented from growing or cut out when small. In other words, a tree should be trained as it should grow rather than pruned after it has grown. This girdling would be violently in opposition to the accepted principle of pruning. But that does not matter. In this iconoclastic age we are accustomed to seeing things turned upside down, especially in the world of science. If somebody should advocate setting trees with the tops in the ground we would at least let him try it.

An agricultural journal mentions a treatment for old trees that might be worth trying. An orange tree was found to be so nearly dead that it was cut down, and then to kill what life there might be in the root a hole was bored in the stump and filled with carbolic acid. The result was a new growth of healthy sprouts. The treatment was extended to other trees which seemed to have little life left, and was followed by a restoration of health and vigor, besides an abundant crop of fruit. This is something like the famous Brown's Elixir of a few years ago, which was to restore youth to old age. It will do well enough to experiment with, provided one has the proper kind of tree, the acid, and an investigating disposition.

"The most highly cultivated apple orchard in Eastern Oakland," said a fruit buyer of that county, "is twenty-five years old and has never yielded even a fair crop." Last season was no exception. The fruit was small, scant and poor. Everything had been done that is demanded by intelli-

gent cultivation, except spraying. Here was the whole secret. The fungous diseases had been too much for the fruit. It was a severe lesson, but under the circumstances no better year could have been chosen for such an experience. The man who had no apples was saved the unprofitable expense of gathering them.

It should be borne in mind that the black knot should be cut out and destroyed while still green. If left till it becomes black half the mischief is already done. As for the old knots it is now claimed that they do no damage after the first winter, except as harbors for insects of various kinds, though decidedly unsightly. When the knot is on a large branch we have cut it out without sacrificing the limb, and prevented further growth by a coat of thick paint. The knot is easily kept under control if the trees are closely watched, but it grows rapidly and spreads quickly if given a chance.

F. D. W.

THE RASPBERRY-CANE MAGGOT.

A bulletin issued by the entomological department of the Cornell Experiment Station, gives a history of the Raspberry-Cane Maggot, and suggests methods by which it may be combated. It is a distinct insect from the raspberry-cane borer, which attacks plants later in the season. The main points of the bulletin are given below:

This raspberry-cane maggot attacks only the new shoots which appear in the spring. The results of its work are very conspicuous, and raspberry growers can thus easily determine if the insect is present in their fields. The tips of new shoots attacked by the insect wilt and droop; the stem of this tip shrinks, turns dark blue in color and finally dies. The wilted tip may be easily broken off at a certain point. If the shoot be carefully examined at this point it will be found to have been girdled by the insect from the inside; how this girdling is done will be described in telling the life-history of this pest. Sometimes a very vigorous shoot will continue its growth from side buds, thus forming a branched cane, but usually the injury to the tip results in the death of the whole shoot. In one case the terminal tip and the tips of three of its side shoots had all been killed by the insects.

The pest begins its destructive work as soon as the shoots appear above the ground in the latter part of April, and its work continues during the whole of May. All sizes of the new shoots are attacked.

Thus when raspberry growers find the tips of new shoots wilted and drooping in May, it is an indication that this new insect pest is at work in their fields. The raspberry-cane borer (*Oberia bimaculata*) causes the tips of the growing canes to wilt and droop in a similar manner; but this insect does not begin work until considerably later, in June. Thus the work of the two insects need not be confounded in our State.

Although raspberry growers will have no trouble in discovering the work of this pest, only the most careful observers will doubtless ever see the adult insect. So close is the resemblance, that the ordinary observer would say that the little flies, which may be seen on the new shoots in May, were simply house-flies. But a careful study of one of the flies, will reveal many differences. A detailed description of this fly is unnecessary here. It is a grayish-black, two-winged fly, not quite so large as, but closely resembling the well-known house-fly, of which it is a near relative.

The progeny which hatch from the eggs of flies are known as maggots. To see the young, or the maggots, of this raspberry pest, it will be necessary to carefully split open an injured shoot; in June the maggots will usually be found below the girdle in the lower portion of the shoot. The maggot is slender, white, smooth, footless, and measures from 8 to 10 mm. in length when full-grown. Its black, hook-like mouth parts may be indistinctly seen through the semi-transparent skin of the head. Its blunt caudal end has around its margin several small fleshy pointed tubercles, and from the center project the two elevated brown spirals.

This new raspberry pest belongs to that peculiar order of insects—the true flies—known as the *Diptera*. It is one of the Anthomyiids, and is thus closely related to the cabbage and the onion root-maggots.

The first record we find of any maggot working in raspberry shoots is the statement of Professor Cook that he found "a maggot working in the succulent growth of a raspberry cane" in 1895, at the Agricultural College in Michigan; this was doubtless the same insect as the raspberry-cane maggot under discussion. The next year, what was probably the same insect, was observed at work in Canada, by Mr. Fletcher; he recorded a very brief but accurate account of its habits. In 1890-91, a raspberry-cane maggot was seen in some West Virginia plantations. In 1894, apparently the same pest destroyed nearly half the new shoots in a raspberry field at Lansing, Mich.; and was also reported as doing considerable damage in the vicinity of Costello, Pa. During the past two years it has injured a large

percentage of the new shoots in the raspberry plantations of central New York; in 1895, Dr. Lintner received many infested tips from Adams, Jefferson Co., N. Y.

From the above historical review, we learn that this new raspberry pest seems to have thus far attracted attention only in Michigan, New York, Pennsylvania and Canada. All observers report that it is apparently as yet confined to limited localities. Its spread will doubtless be rather slow; the flies may go from one field to another, and a few of the maggots or puparia may be transported in stock shipped from infested fields.

The insect works in the new shoots of both red and black raspberries, and no other food-plants have been recorded.

In the latter part of April, when the new raspberry shoots are a few inches in height, the adult insect—the fly—appears and soon begins laying eggs. The comparatively large, prettily sculptured, elongate, white eggs of this pest are loosely placed near the very tip of the shoot in the crotch formed by the bases of the tip leaves. As the fly is smaller than a house-fly, these eggs are comparatively large ones for such an insect, and would thus indicate that one female fly does not lay a large number of eggs. How soon the eggs hatch, we did not determine; it is doubtless but a few days. The little white maggot which emerges from the egg, crawls down the shoot for a short distance (less than an inch), and then burrows its way into the pith of the shoot. The entrance hole of the maggot is usually quite conspicuous, as the surrounding tissues turn blackish. After the maggot reaches the pith it proceeds to tunnel its way downward, making a small, somewhat tortuous tunnel in the pith. After tunneling about half the length of the shoot (sometimes this is six inches or more but may be only an inch or two), the maggot works its way nearly out to the bark, and deftly continues its tunnel around the shoot, thus girdling it from the inside. Usually the maggot eats a small hole out through the bark, at some point in the girdle; the use of this opening we have not determined. The maggot continues feeding on the pith at the point where the girdling was done, and nearly severs the shoot in this way. Usually the maggot girdles the shoot in a spiral manner, sometimes tunneling nearly twice around. The part of the shoot above the girdle soon wilts, shrinks in size and droops over. Soon after the tip droops, a dry rot begins at the girdled point, the wilted portion turns a dark blue color, and the whole shoot usually dries up and dies. Perhaps the maggot could not develop in a growing shoot, and it would also be hindered in its transformation to the adult in such a shoot. This may be the explanation why the insect girdles the shoot.

After thus checking the growth in May, the maggot proceeds to burrow its way downward in the pith and finally reaches the base of the shoot at or near the surface of the ground. This point is usually reached sometime in June.

By July 1st, many of the maggots had undergone a transformation in the lower end of their burrow. Their skin had hardened, turned dark brown in color, and inside this puparium the insect was passing through the pupa stage preparatory to becoming an adult. Although the puparium is found in June and July, the adult insect—the fly—does not emerge until the next April. The winter is thus passed as a pupa inside the dead base of the shoot. There is but one brood of the maggots each year.

Like most of our injurious insects, this raspberry-cane maggot has its enemies among its own kind—the insects. Instead of the adult insect—the Anthomyiid fly—emerging from some of our puparia, a little four-winged hymenopterous parasite appeared. The indications are that many of the maggots fell a prey to this little enemy in 1895 and 1896. It has been determined as *Idiota incompleta* Prov. We hope its good work will continue in our raspberry fields.

With a little watchfulness this new raspberry pest may be easily checked. Its presence may be quickly detected in May, as its work is then very conspicuous; and this is the only month in which the insect can be combated practically and with any success. It is capable of doing much damage, especially on new and valuable varieties.

The remedy is simple. As soon as a drooping tip is seen, either pull up the shoot or cut it off several inches below the girdle and burn it. This method faithfully carried out throughout May, will quickly check the pest. There is no possible chance of getting at the insect with a spray. Simply burn all infested shoots in May.

CONSUMPTION CURED.

An old physician retired from practice, had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma and all Throat and Lung Affections; also a positive and radical cure for all Nervous Complaints. Having tested its wonderful curative powers in thousands of cases, and desiring to relieve human suffering, I will send free of charge to all who wish it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail, by addressing, with stamp, naming this paper, W. A. NOYES, 820 POWERS' BLOCK, ROCHESTER, N. Y.

CHOICE Seed Potatoes, 30 varieties, in bu. or car lots; 4 new varieties of corn and oats that make large yields. A present for every M. F. reader. Prices low Catalog free. C. C. BRAWLEY, New Madison, Ohio

Mind this. It makes no difference,

RHEUMATISM

of the Muscles, Joints, and Bones is cured by

Chronic,
Acute, or
Inflammatory



FORESTRY LAWS IN FRANCE.

Foreigners resident in France, who imagine that they can deal with their properties with the same freedom from official regulations as they are accustomed to do in England, will do well to remember the second chapter of the French forest code, which imposes certain restrictions over the management of the woods of private proprietors. Briefly speaking, these restrictions impose the exploitation of private woods under the same conditions as those which obtain in the state forests. And to insure that these are observed, it is provided in Article 219 that "no proprietor can exercise the right of felling or removing his woods without having made a declaration to the sub-prefect at least four months in advance, during which the administration can signify to the proprietor their objections to the proposed deforestation."

1. For the maintenance of the ground on the slopes of the mountains.
2. For the protection of the soil against erosions and inundations by rivers and torrents.
3. For the existence of springs.
4. For the preservation of "dunes" and coasts against the invasion of sand.
5. For the defense of territory on the frontier.
6. For public health.

If these safeguards are in any way imperiled by the unlicensed cutting of wood, the fines are very heavy, amounting to a minimum of 500 francs and a maximum of 1,500 francs per hectare, together with the obligation of reforestation within the space of three years. The penalties for cutting individual trees are equally severe, varying according to the class and to the size of the trees. Oaks, beeches, pines, larches, and all fruit trees, are placed in the first class; limes, poplars willows, and all not included in the first class taking the second rank. The fine for cutting trees of the first class is one franc per decimeter of girth, and 50 centimes for trees of the second class.

Seeing the immense loss of revenue which has been sustained by the state, by the communes, and by the private proprietors themselves, in consequence of the reckless felling of forests on the tops of the mountains and on steep slopes, we cannot be surprised at the vigilance of the forest officials, whose duties are almost invariably discharged with courtesy, as well as needful strictness.

To the horticulturist the spring season brings up the question of how and when he shall spray his trees and plants as a protection against insect pests, what compounds he shall use, and what pumps he will rely upon to apply them. When you are considering these points, write to F. E. Myers & Bro., of Ashland, O., for their catalogue of spray pumps, with descriptions of same, and how to manage them to secure the best results. You will find it worth while.

Thin and impure blood is made rich and healthful by taking Hood's Sarsaparilla.

Apiarian.

NOTES FROM AN ENGLISH BEE-KEEPER.

"Twenty-four queen cells hatching in a nucleus hive is a nice number," says our English correspondent; "but when 16 young queens hatch out of this within an hour, and finish up by a general swarm out, things are only middling. I kept twelve young queens and destroyed the rest." This is an extract from an amateur queen-raiser's letter to me. It is not a good thing to cramp bees in nucleus hives too much. Bees like work, and if too many are congregated on fully-drawn-out combs in small hives, their natural instinct is to swarm out. Keep an empty frame in a nucleus hive.

Honey is coming in freely, and yet the bees are killing off drones. This either means that the workers expect the supply to stop short very soon, or else they grudge the "leisure class" a life of gay buzzing around while they—the workers—toll all day in the hot north wind. Bees do occasionally kill off drones in this manner for no apparent reason. All things are possible in a democracy, and if the majority decide that drones must die because they do not gather honey, die they do. Suppose that all the bees in the other hives did the same, some of the remaining democracies would also probably die too, as the result indirectly of having killed their drones too soon. Each hive of bees is a separate and distinct organization, prepared to wage war against its neighbor, or rob its neighbor's stores. Strong hives will rob weak hives. Individuals from weak hives will sneak into strong hives and rob when they should be gathering from the flowers. "How doth the little busy bee" is a very pretty sentiment if the question is not pushed further than the methods of gathering honey from flowers and other poetical fancies are concerned; but poetry of the Rudyard Kipling style would be required to describe the mean-sneak thieving qualities and the overweening bullying powers of the same "busy bee" under different auspices.

Jamaica is a good bee-keeping country, but even there droughts stop the honey-flow at times, and the white ant eats up

the hive over night. The honey produced is of high quality, but the industry is in its infancy there yet. The population is mostly black, and the hives they keep are the primitive gin case, with the native black bee. A few enterprising Americans are exploring for localities now, and soon Jamaica will be fitted up with patent hives and orderly apiaries. The climate is tropical, the uplands being cool and healthy. The island is under British government, and the black races are therefore more easy to get on with than they are under the stars and stripes over the way. The scenery is lovely, and a man could combine bee-keeping and an artist's life very pleasantly, though perhaps the combination would barely keep the finances square, as honey is quoted at 15s. per cwt. The blacks bore a square hole in the top of their gin cases there, and add a super with a glass side. This can be removed when full of honey, and is certainly a better way than straining bees, brood and honey through cheese cloth, as is sometimes done by whites here.

MAKING AND SHIPPING BEESWAX.

At the last annual meeting of the Michigan State Bee-keepers' Association, M. H. Hunt, of this county, a successful apiarist, and of long experience, read a paper on the above subject, in which he said:

Perhaps no one is a better judge of beeswax than the manufacturer of comb foundation. He learns the appearance it should have, the touch, and even the smell, as readily as he does the aroma of his morning coffee.

Many have tried adulterating, and with success so far as the smelling is concerned, until he tries the foundation maker. Many dollars have been wasted to find a substitute for beeswax, but all have failed; it's no good for the bee-keeper.

The quality of the beeswax of this country has been much improved in the last five years—it is much brighter and cleaner. The sun wax extractor has had something to do with it, also steam rendering. In an experiment a number of years ago, I found that the soaking of dark comb in several waters removed much of the coloring matter, which improved the wax very much. Some of the combs were put in whole to soak, and were so improved that they were taken out and used again. By drying them thoroughly much of the old pollen will rattle out.

Never use an iron dish about the wax, even if galvanized. We always make up our wax by steam. The combs is put into a large sack of loose material, and put into a barrel and covered with water; as the melted wax comes to the top it is skimmed off. The addition of two ounces of sulphuric acid will add much to the color and cleanliness of the product. Turning and poking the sack will help to get the wax out more thoroughly.

Avoid melting the wax over too many times; every time makes it darker colored. Make the cakes medium-sized and don't pour into the molds until cooled so it will just run nicely. Wet the dish and you will not have to grease it, which is objectionable. If the above directions are followed your cakes will not crack.

Our apiarist has always saved every particle of comb and pressed them into little, hard bars, and no worms have ever been found in them. These savings are made up twice a year.

In preparing your wax for shipping, much care should be used, especially if sent by freight, which is usually the best way. The box it is put in should be strong and well nailed. See to it that there are no holes that the pieces knocked off in transit will rattle out. Fasten the cakes so they will not shake about in the box. Never put any packing in with it, such as excelsior, paper or straw. The last thing before nailing up, put in a card with the exact weight of the wax, together with your address.

If you follow the above directions, and make no mistake in the weighing, there will be no shortage and your buyer will be made happy. Reporting a shortage is not pleasant.

When writing to advertisers please mention that you saw their advertisement in the MICHIGAN FARMER.

Blood Pure?

Is it? Then take Ayer's Sarsaparilla and keep it so. Isn't it? Then take Ayer's Sarsaparilla and make it so. One fact is positively established and that is that Ayer's Sarsaparilla will purify the blood more perfectly, more economically and more speedily than any other remedy in the market. There are fifty years of cures behind this statement; a record no other remedy can show. You waste time and money when you take anything to purify the blood except

Ayer's Sarsaparilla.

DON'T BUY SEED POTATOES until you get my wholesale price list. I also sell genuine Dwarf Essex Rape Seed. A. H. FOSTER, Allegan, Mich.

WOUNDED AND PARALYZED.

An Old Veteran of the War after Years of Suffering has a Shock of Paralysis.

From the Press, Utica, N. Y.

Mr. David G. Talbot is a well known and respected citizen of Otsego county, New York, residing at Edmeston, who three years ago had a stroke of paralysis, which he attributes to the effects of a wound received on the 16th of June, 1864, before Petersburg, Va., while serving with the New York Heavy Artillery.

The following is his own account of his illness and convalescence, which will be found interesting:

EDMESTON, N. Y., Aug. 31, 1896.

"On the fifth day of December, 1893, I was taken with a paralytic shock, which affected the whole of the left side, and I could not speak for three weeks. I was confined to my bed for a long time and constantly attended by a physician, though little relief was experienced. My stomach and the muscles of my throat were much affected. I was wounded in June, 1864, at Petersburg, Va., having then lost three fingers of my left hand, and that always affected me in a marked degree, my arm often becoming numb. I should state that on the day I received the stroke, I had two distinct shocks, the first in the morning, which was so light that the doctor was not at all alarmed, but the second nearly finished me up. Ever since the war I had suffered with nervous debility and my condition was very bad when I was attacked. I am now sixty years old and hardly dared look for anything approaching good health after my life of suffering, but I saw so much said about Dr.

Williams' Pink Pills for Pale People in the newspapers, and that they were good for paralytics, that I determined to try them. This I did just one year and four months ago. I strictly followed directions and felt better within a week. I am not the same man I was when I began to take Dr. Williams' medicine. My old comrade, Nerton, who was in the same company and regiment with me, and was a grievous sufferer from general nervous debility, at my recommendation has taken Dr. Williams' Pink Pills and they have helped him wonderfully.

"I certify on honor that the above statement is true in every particular."

(Signed) DAVID G. TALBOT.

Witness: John C. Lappens.

Dr. Williams' Pink Pills contain, in a condensed form, all the elements necessary to give new life and richness to the blood and restore shattered nerves. They are also a specific for troubles peculiar to females, such as suppressions, irregularities and all forms of weakness. They build up the blood, and restore the glow of health to pale and sorrow cheeks. In men they effect a radical cure in all cases arising from mental worry, over-work or excesses of whatever nature. Pink Pills are sold in boxes (never in loose bulk) at 50 cents a box or six boxes for \$2.50, and may be had of all druggists, or direct by mail from Dr. Williams' Medicine Company, Schenectady, N. Y.

You Can Eat

Campbell's Early Grapes without eating the seeds. The pulp is sweet to centre, so the seeds are easily separated without making the tongue sore, as common grapes do.

CAMPBELL'S EARLY GRAPES

are unusually hardy and vigorous. Largest clusters, finest quality. Ripen early and keep late. None genuine without our seals. Elegant Catalogue free.

GEORGE S. JOSSELYN, FREDONIA, NEW YORK.

Peach Trees, Peach Trees, Peach Trees, Peach Trees.

WE HAVE TO OFFER Elbertas, Early and Late Crawford, Smock, Hill's Chilli, Crosby, Snow's Orange, Yellow St. John, Golden Drop, Early Michigan, Salway, and other best varieties.

Send us your list for prices. Illustrated Catalogue sent free to any address.

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BIG BERRIES

His book "HOW BIG BERRIES AND LOTS OF THEM ARE GROWN" and new price list free.

OUR BERRY PLANTS known as THE BEST throughout the U. S. We sell DIRECT to customers. NO AGENTS. M. A. Thayer, highest recognized authority on berry culture, is our manager.

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FRUIT TREES.

NOTICE TO PLANTERS.

We have a large stock of our own growth, of Apples, Pears, Plums, Cherries, Peaches, small fruits, etc., etc. By ordering direct from us you will save 50 per cent. All trees guaranteed true to name. 40 years in the business. Write us and save money by doing so.

L. G. BRAGG & CO., Kalamazoo, Mich.

OCEAN CITY Strawberry

Finest flavor; large and solid. Bear enormously. Donald's Empire Raspberry Rootstock, a new production of rare merit. Greensboro Peach, Japan Plums, Small Fruits, etc. Peach Seed. Catalogue FREE. HARRISON'S NURSERY, BELLEVILLE, MD.

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HILLSDALE POMONA held its April meeting with South Jefferson Grange on the first. As far as reported there was nothing discouraging from subordinate Granges. After the welcome address by Sister Bowditch and response by Worthy Master Moore, the interest of the Grange centered in the discussion of the proposed repeal of the mortgage tax law, thus exempting mortgages from taxation.

Brother Davis: "This move is in response to demands from monied districts

and petitions from the northern part of the State where money is scarce, security poor, and rates high. Senators and representatives will work for their constituents and the measure will carry unless there are vigorous protests sent in soon. It is the first step towards a more sweeping exemption."

Brother Bowditch: "It would neither make money more anxious to loan nor money more plentiful."

Worthy Lecturer Hunker: "In divine economy where much is given much is required. This law is sought to be reversed by the effort being made by the moneyed class to avoid taxation. The same bill was passed during Governor Luce's administration but was vetoed. It's drifting towards Henry George's single tax theory."

Brother Drake: "The law as it is, is not satisfactory. It should either be repealed or amended."

Worthy Master Moore: "The rate of interest is fixed by the bankers' association and all have rates alike. The repeal of the present law would neither make money more plentiful nor rates less. Bankers will demand all they can get anyway."

Brother Davis: "The present law is said to be a system of double taxation; there is a great outcry against it as unjust by money lenders. To make it single and right they wish to be relieved from paying taxes on their mortgages, and let the other fellow pay it because he owns the farm, you know. Forty-four per cent of the taxable property of Hillsdale Co. is represented by mortgages." Brother Davis is an old supervisor.

Resolutions were passed against the repeal of the present law and in favor of a strengthening act making it more effectual. The proposed constitutional amendment raising the salary of the Attorney General was also discussed. On the whole the Grange was in favor of it if it could stand alone. But it was thought that it would be opening the door for a general advance of official salaries and its propriety doubtful.—W. KIRBY.

LENAWEE CO. GRANGE met with Working Grange in Riga on Thursday, April 1st.

A fifth degree session was held before noon. After dinner a general program was rendered, followed by reports of subordinate Granges, and action upon resolutions, etc., all in the fourth degree. A paper by Bro. George Humphrey was entitled "Is our form of government a perpetual one?"

If there is one thing to be proud of, it is our privileges, which each may enjoy.

The Declaration of Independence and downfall of slavery each received a tribute. Referring to the disclosures of the last fifty years, we are startled at what may be the possibilities of the next fifty years.

Among various classes rest the seat of ignorance, socialism and forms of vice that our government must resist. On the other hand, perils are added in Shylock's interest. While the writer did not think the government was to be overthrown by these internal forces, it is still the duty of every voter to overlook partisanship and so vote as to strengthen our government and nationality.

In discussion of the paper Bro. Chandler thought that till within a few years the turbulent elements from monarchical Europe had easily been absorbed in our nationality, and became good citizens. Lately they have been so numerous that they have demanded a recognition of fallacies brought with them, and ideas not akin to Americanism.

M. T. Cole believes that socialism is a disorganizer of strongest type.

Jacob Rosenstiel noted that our government is built on Yankee principles, and is firm in belief of the perpetuity of American institutions.

Sister Kellogg would have every farmer of the land possess a national flag and fly it for the benefit of the young.

A paper by Bro. Rosenstiel, master of Working Grange, was entitled "Grange Methods." When duty calls any Patron, no excuse should be encouraged. He recommended numerous committees, covering all topics of importance, whose special duty it should be to get the information required and report.

Among special committees suggested were charity, woman's work, with a member in each school district within the jurisdiction of the Grange, political economy, Agricultural College, natural history, etc., and recommended that the list of committees and names of all members be posted in a conspicuous place in the hall. Many other valuable suggestions were made.

Worthy Master Horton of the State Grange was with us. He compared the local Grange to the rank and file of the army. The discipline received in the Grange might be compared to the use of military tactics, as a fundamental principle in preparing for the usefulness of the army.

Brother Horton advocates having two rooms at the Grange hall and during the business session let the children of Grange parents play Jersey boy and Needle's eye in the other room and later assist in carrying out the program. He has often heard mothers say that they would not have come to the Grange-to-night but the children wanted to.—E. W. A.

GRANGE AND CHURCH.

Read at Pomona Grange of Newaygo Co., in March by Mrs. N. L. Lewis, of Fremont.

Is the Grange a hindrance to the church? If so, why? I think each Patron here will answer an emphatic, No. But there may be some not members and that they may be the better able to settle this question in their minds I will try and set forth some of the principles and purposes of the Order.

We do not question that the church is the

best institution in the world. It pertains to spiritual matters, and many of the teachings of the Grange are on those lines. In no way do the obligations of the Order conflict with our social, moral or religious duties.

Note the influence of the Grange from subordinate to national. Though the operations of the Order are invisible, the results are patent. The Grange is an educator, and as the hope of this nation is in the education of its people, that must be counted a strong feature in its favor.

Mark the change that has been wrought in social and educational work. One of the strongest planks in our declaration of purposes is for a broader and higher education. The Institutes—who can estimate the good they do?—exist to-day because of the Grange. The Order is a center from which radiate several educational lines.

Unlike most other organizations the Grange opens wide its doors for the admission of woman on an equality with man. She is eligible to any office, and for the moral, social and intellectual advancement of the farmer and his family it has no equal. The social feature of the Grange alone is worth all it costs. Its members are moral people with good social standing, and meeting together in these fraternal gatherings must of necessity be beneficial. If by chance anyone should be admitted whose standing is otherwise, unless they are susceptible to the benign influences of the Grange the atmosphere won't be congenial and they won't stay long. But if by belonging to the Order we shall help them to a higher and nobler manhood or womanhood, we shall have accomplished much. Let us foster and cherish this fraternal spirit that binds us closer together in a common brotherhood.

We gladly welcome the young people. The realities of life will soon come upon them. Experience in the Grange will better prepare them to meet these responsibilities. Some of us are well advanced on the last half of life's journey and the Grange will soon know us no more. Someone must fill the places we now occupy and upon the young people will devolve that duty, for the Grange is of national existence and has come to stay. In the misty past it was thought all that a farmer need to do or know was to stir the soil and plant the seed. But as agriculture is a progressive science, the farmers that are successful must keep pace, and through organization they have made rapid improvement intellectually as well as in advanced methods of farming and their mental horizon can be circumscribed by no mean circle.

Patrons have educated themselves to ask and work for a just recognition of their interests in legislation. Much has been accomplished and much more will be. The possibilities of the Grange cannot be measured. I hope to see the day when it will throttle this hydra-headed monster that is ruining the homes and breaking the hearts of so many and wipe it off the face of the earth, and thus forever solve the liquor question.

The Order is a God-fearing organization. Every good Patron places faith in God, and is active in whatever tends to advance the welfare of society and lighten the burdens of humanity. Our ritualistic work teaches us of the wondrous works of God. The Grange opens with an invocation to the Divine Master and closes with a benediction. It admonishes us to dispense charity in deeds and words. That as flowers and vines can be trained to cover unsightly places in nature, so let us train ourselves to cover the faults of others with charity and remember only their virtues. Its lessons teach us to beware of covetousness; "That a man's life consisteth not in the abundance of things he possesseth but in the right use of God's blessings." It impresses on our minds that "whatsoever a man soweth that shall he also reap," and enjoins us to sow seeds that they may meet our Heavenly Father's approval. Our degree work is emblematic of the immortality of the soul and that there is another and a better world "where everlasting spring abides and never withering flowers." The lessons in each degree are beautiful and inspiring, and can all this be a hindrance to the church? There are those who will acknowledge that these facts may be true, yet they object because it is a secret society. Every home is a secret society, or should be. It is just as absurd to say that a well regulated home is a hindrance to the church, as to say a well regulated Grange is. Now, if an order working under such principles as I have briefly outlined, and upon whose banner is inscribed Faith, Hope, Charity, and Fidelity, is a hindrance to the church, let him who thinks so tell why.

ILLINOIS GRANGE NOTES.

On March 20th State Master Wilson organized a County Grange at Irene, Boone Co., with 65 members: Master, Charles E. Chena; Lecturer, Mrs. Florence Merchant; Secretary, O. S. Cohoon.—On March 27th, W. H. Cartwright organized a new Grange at Fosterburg, Madison Co.: Master, John Kreig, Secretary, C. H. Golike.—The Chicago branch of the Weather and Crop Bureau will send its weekly bulletins to all of the Illinois Granges, through the crop season.—Magnolia Grange, Putnam Co., spiced its program with a marriage of two members the other day, and then rounded up with a wedding feast at the house of State Master Wilson.—The McLean County Grange held its March meeting at Normal with a large attendance of members and a good program of agricultural papers and discussions, the good roads question receiving special attention.—The Iowa farmers are in an organizing mood and have added 15 Granges within a few weeks.—Union Grange, McLean Co.,

held eight meetings in the past quarter, made a profit of \$120 on co-operative business, and its programs are full of interest and practical value.—Buena Vista Grange, Schuyler Co., has held seven meetings this year, has gained 10 new members, saved a snug sum on co-operative purchases and has a good outlook ahead.—Wood River Grange, Madison Co. has printed the programs for its semi-monthly meetings throughout 1897. Farming, domestic affairs, literary matters, etc. have due proportion to suit all seasons, and No. 901 is a busy and prosperous Grange.—Hickory Grove Grange, Fulton Co., held five regular meetings in the past three months, with good attendance and interesting programs.—The Farmers' Institute season is over now, as they usually meet but once a year. The Institute aims to present a first-class agricultural program, and hence calls upon the good writers, good talkers and well posted people to take the leading parts; this is all right for the program, but don't bring out the young people. Whereas, the Grange meets all the year round and schools the boys and girls of the farm in theory, practice and how to tell it in public.

THOS. KEADY, Sec. State Grange.
DUNLAP, ILL.

THE EDITOR'S TABLE.

Arbor Day. By proclamation April 30 has been designated Arbor Day in Michigan. Worthy Lecturer, have you arranged a program for that time? And does it include the setting of trees and shrubs around your Grange hall? There are hundreds of Grange halls in this State, the interiors of which are pleasant, comfortable, and in some cases almost luxurious. But how many halls are there that have trees and shrubs to add to and adorn the plainness of the exterior of these halls? Any Grange which is the fortunate possessor of a hall of its own, be it plain or fancy, large or small, should add to the beauty of it by setting out a few trees each Arbor Day.

The Departed. We have a practical suggestion to make in this connection. Every Grange in Michigan mourns the loss of some valuable member of the Order. We pass "appropriate resolutions," we "drape the charter in mourning for thirty days," and we miss the presence for a time. But we believe that we can build more lasting monuments to the "Great Grange above," which will preserve their memories to us and be as well ornaments and a joy forever. Let us, each Arbor Day, plant trees in the yard of the Grange hall in memory of those who have died during the year, dedicating a particular tree to the memory of an individual. In this way we shall rear beautiful monuments which will grow stronger and more enduring as the years go by; we shall thus beautify our surroundings, and each tree thus planted will have a double meaning. It will be a beautiful ornament, and it will have a sacred association. We commend this suggestion to all Granges that own halls.

Notices of Meetings. We should like to get notices of all Pomona meetings, and programs as well. But lecturers must remember that copy must be in the editor's hands promptly. We have had to omit several notices lately, because not received in time. All copy is sent to Detroit not later than Monday noon of each week. For instance, all news items for this issue of the FARMER, April 17th, were sent by the editor of this department Saturday, April 10th, and Monday, April 12th. Do not forget this fact, and be sure to send any news or program so the editor will receive it Saturday, if possible, or at least not later than Monday noon.

What Counts in Grange Work. The real work of the Grange is not measured by the number of members, nor by money saved through co-operative purchases, nor by the legislation brought to pass, nor by the social and pleasant times enjoyed. These are elements of successful Grange work. They are all factors in carrying out the true purpose of the Order. Nevertheless they are but elements, factors, parts. The real and best result of Grange work can not be seen so clearly as can these parts, elements, factors be distinguished. The real work of the Grange is character. Men and women are made better in the Grange; they are more virtuous, in the sense that thoroughness, self-culture and strength of mind are virtues. The members of the Grange become educated—trained, if you please. This education, this training, this culture, is the true Grange work.

—That tired feeling is due to impoverished blood. Enrich the blood with Hood's Sarsaparilla and be strong and vigorous.

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We have used one bottle of your "5 DROPS," and I must say it has done wonders. My wife who has been troubled with Rheumatism for thirty years, has become another person. We had already tried everything that came under our notice for her, but failed to obtain relief until we read one of your advertisements, and concluded before we gave up all hope to try "5 DROPS." How glad we were that we tried it cannot be expressed in words. It is a most wonderful remedy and cured where everything else had failed. We recommend all our friends to use your remedy. You may use my name as a reference.

Gratefully yours,
JOHN A. LINDSTROM,
St. Helena, Neb. (Box 62.)

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Yours respectfully,
ANNIE E. YOUNG, Araby, Md.

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DEAR SIR: March 1, 1897.
The medicine that you sent me has proved to be a blessing to my mother. She had Neuralgia for 15 years, and looked as though it would kill her. The Doctors could not relieve her suffering one minute. She took "5 DROPS" two or three days, and she has not felt it since. She is more grateful to you than words can express.
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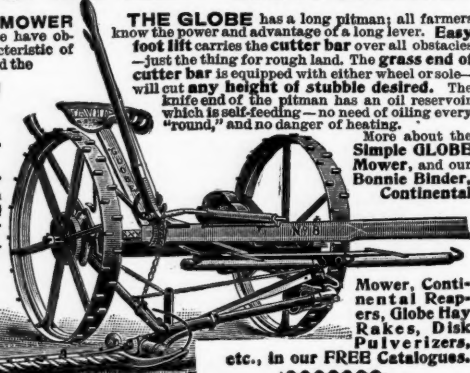


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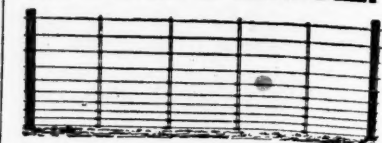


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